

Fig. 1

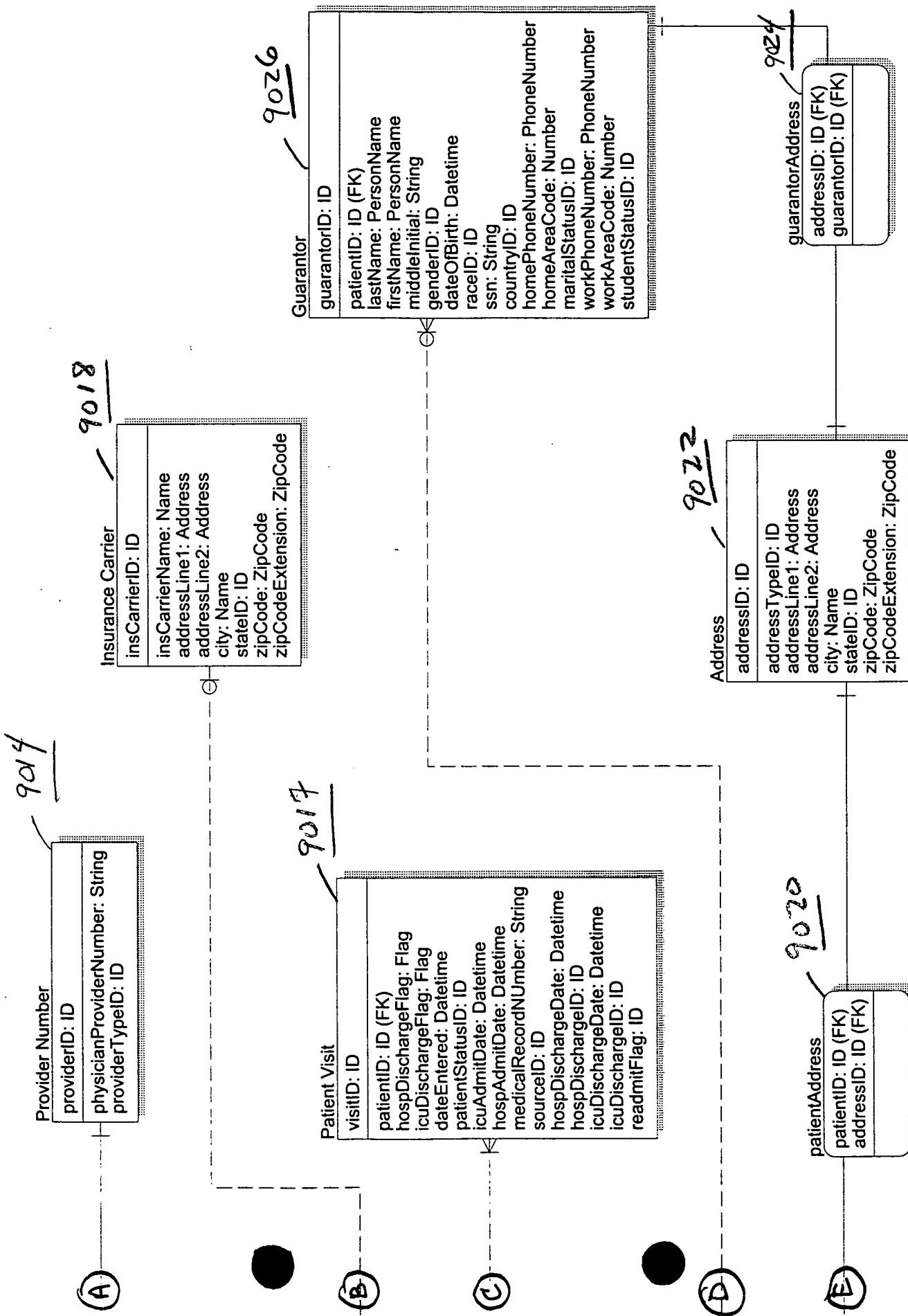


Fig. 2

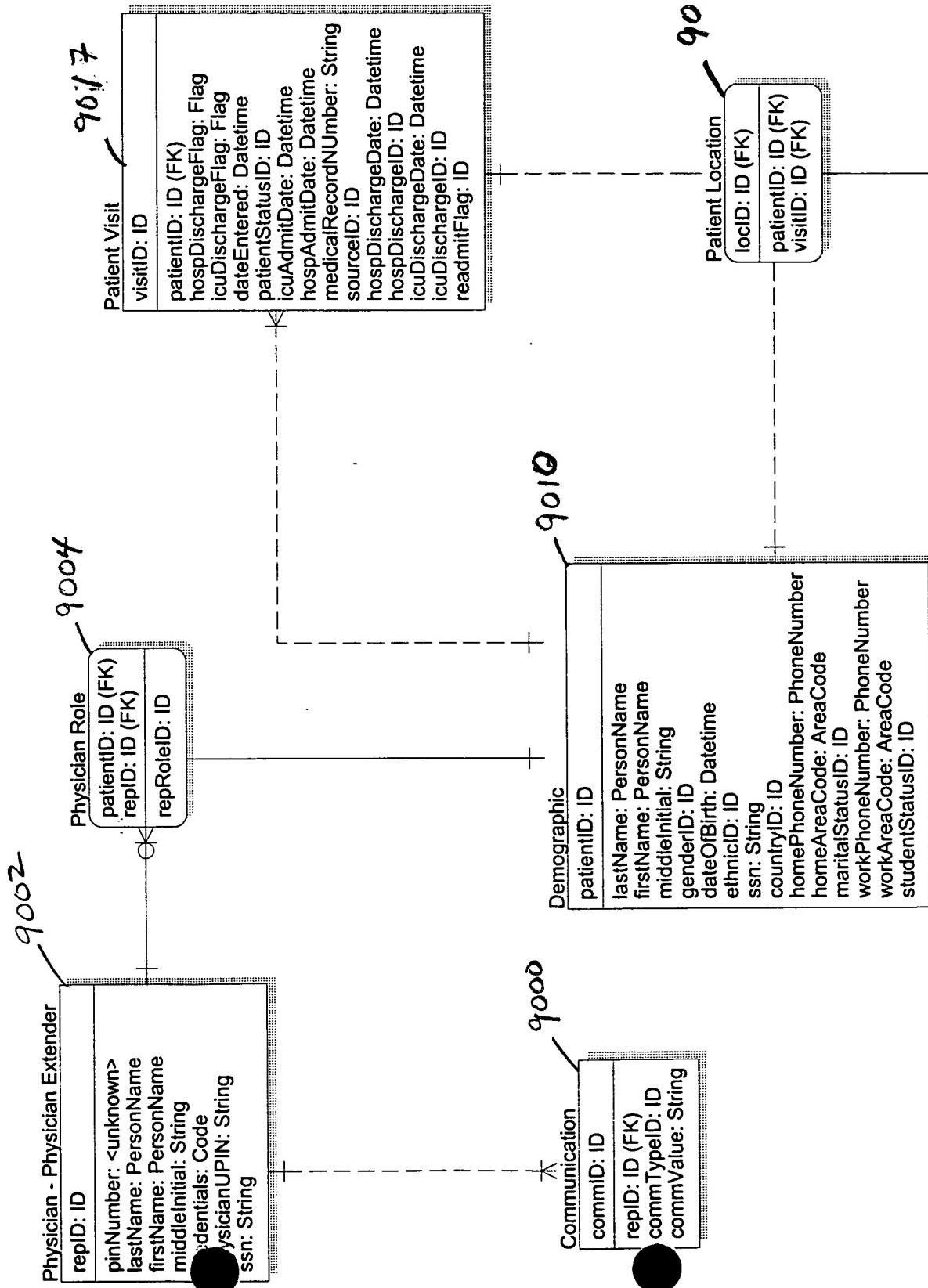


FIG. 2A

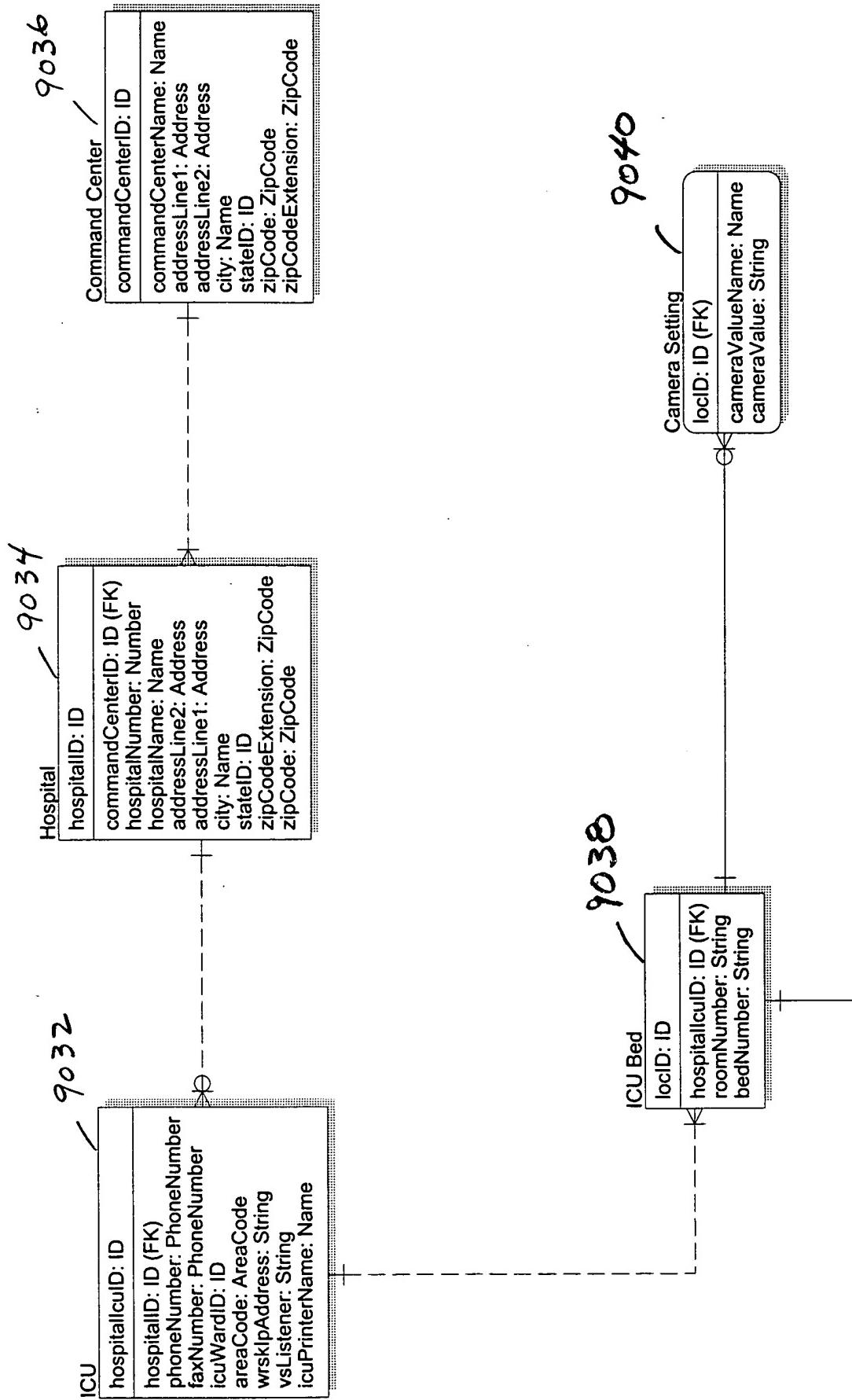
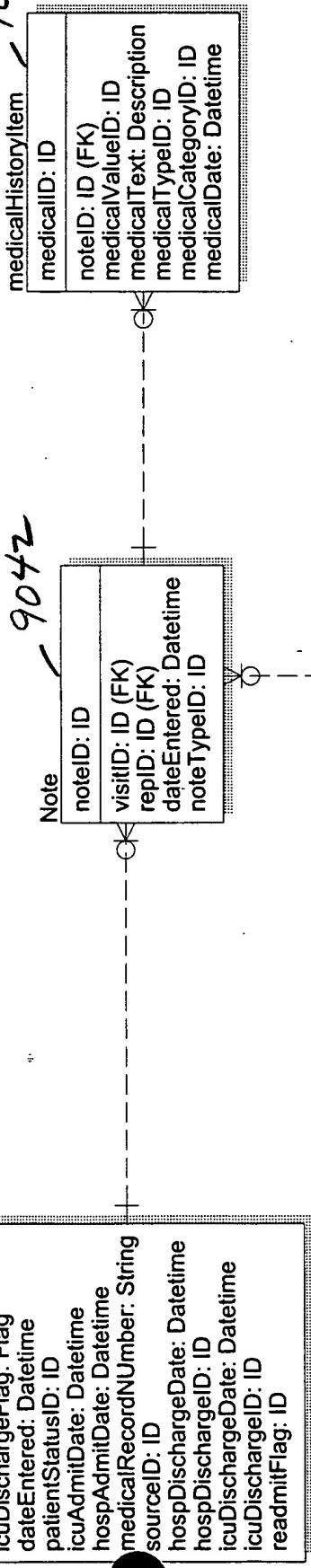


Fig. 3

901.7

Patient Visit
visitID: ID
patientID: ID (FK)
hospiDischargeFlag: Flag
icuDischargeFlag: Flag
dateEntered: Datetime
patientStatusID: ID
icuAdmitDate: Datetime
hospiAdmitDate: Datetime
medicalRecordNumber: String
sourceID: ID
hospiDischargeDate: Datetime
hospiDischargeID: ID
icuDischargeDate: Datetime
icuDischargeID: ID
readmitFlag: ID

901.7



904.2

Note
noteID: ID
visitID: ID (FK)
repID: ID (FK)
dateEntered: Datetime
noteTypeID: ID

904.2

medicalHistoryItem
medicalID: ID
medicalID: ID (FK)
noteID: ID
medicalValueID: ID
medicalText: Description
medicalTypeID: ID
medicalCategoryID: ID
medicalDate: Datetime

900.2

Physician - Physician Extender
repID: ID
pinNumber: <unknown>
lastName: PersonName
firstName: PersonName
middleInitial: String
credentials: Code
physicianUPIN: String
ssn: String

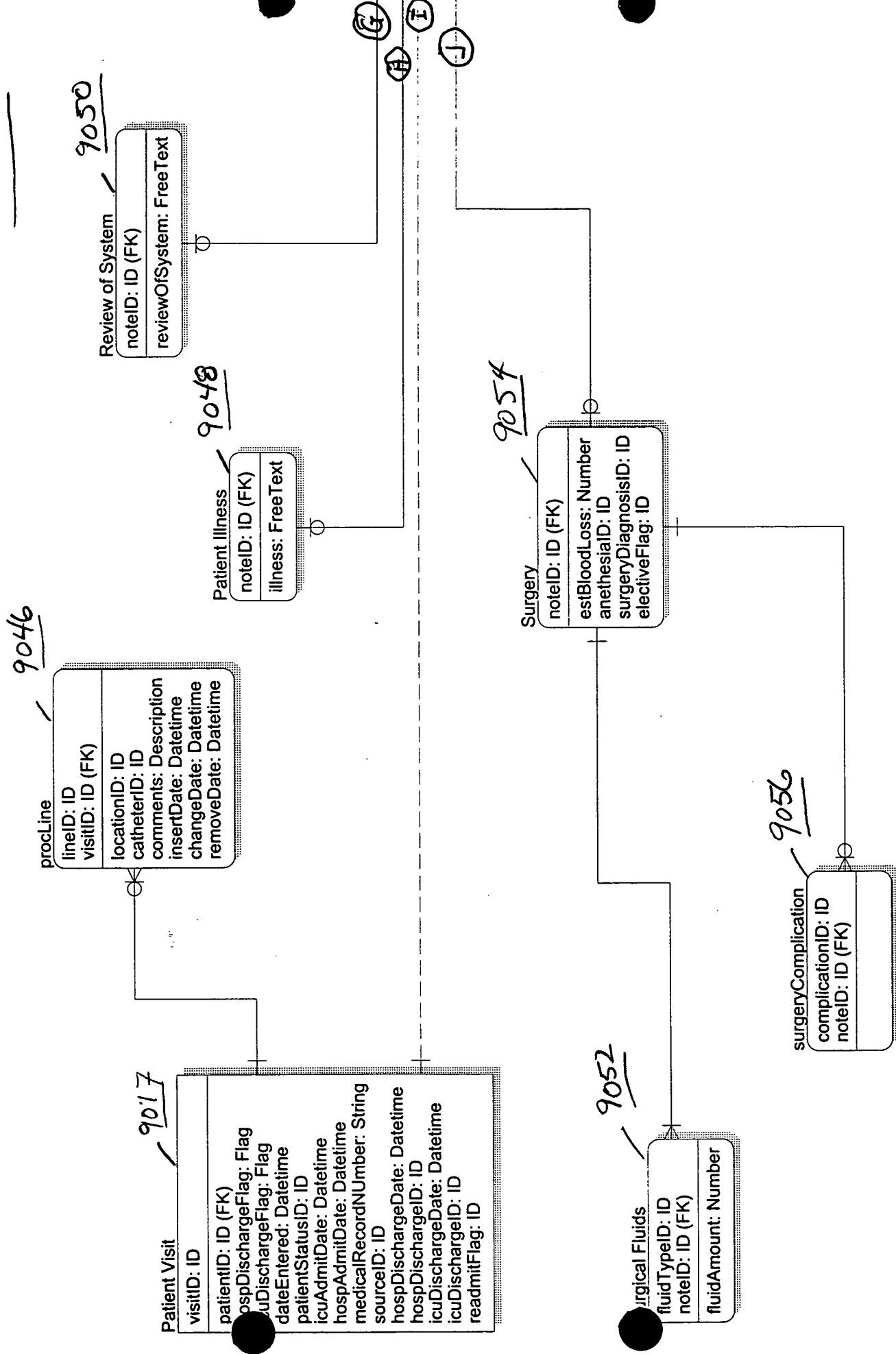
Fig. 4

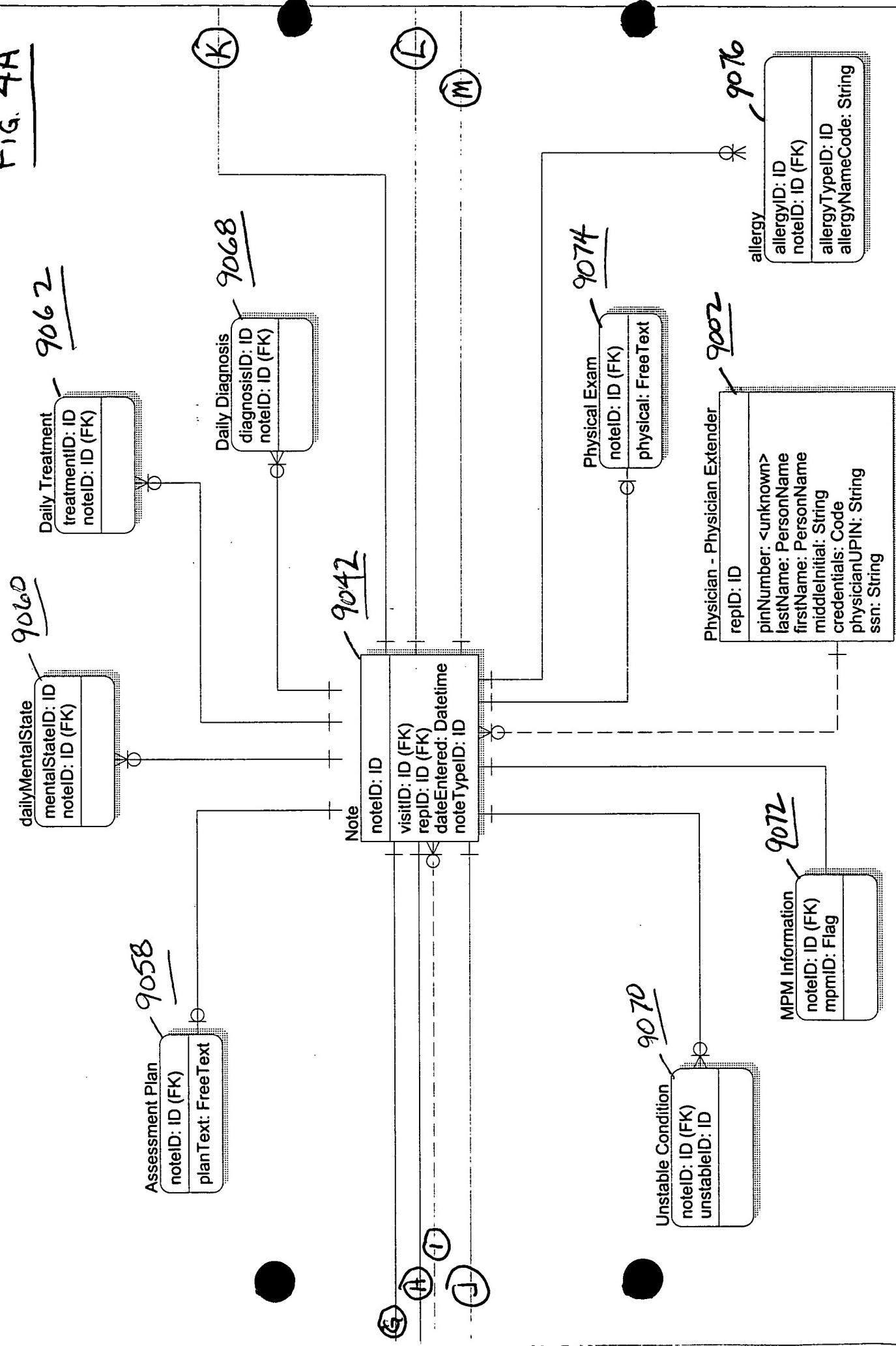
FIG. 4A

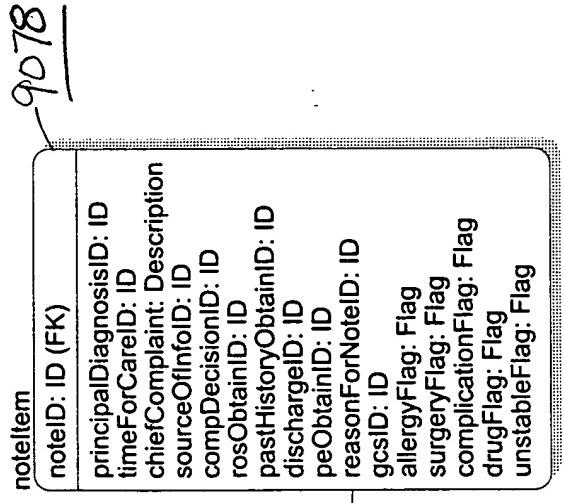
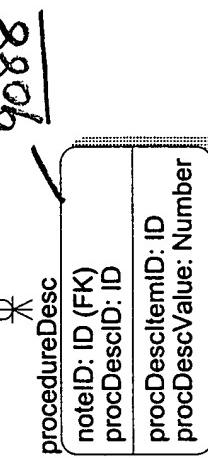
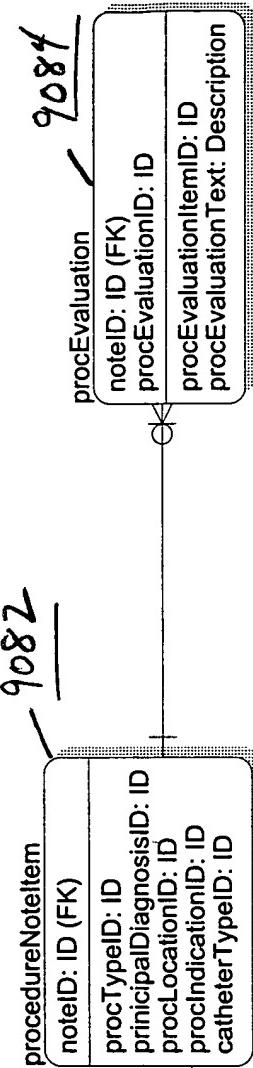
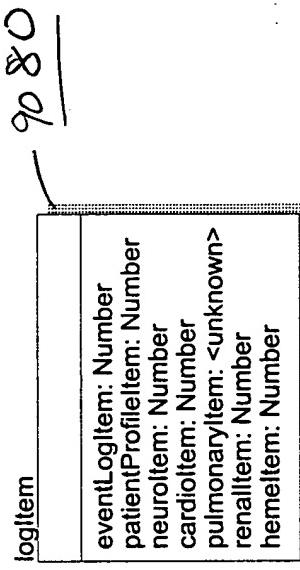
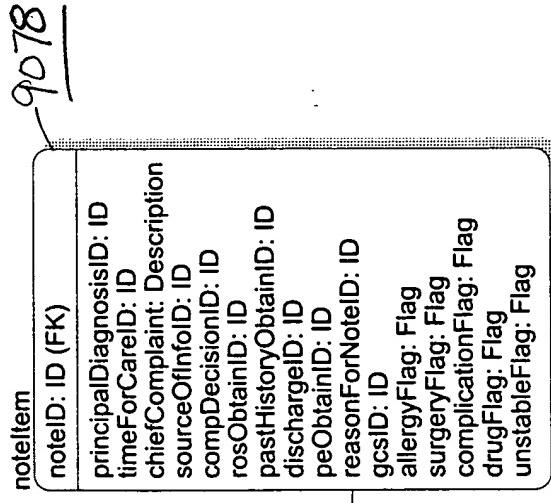
FIG. A B

Fig. 5

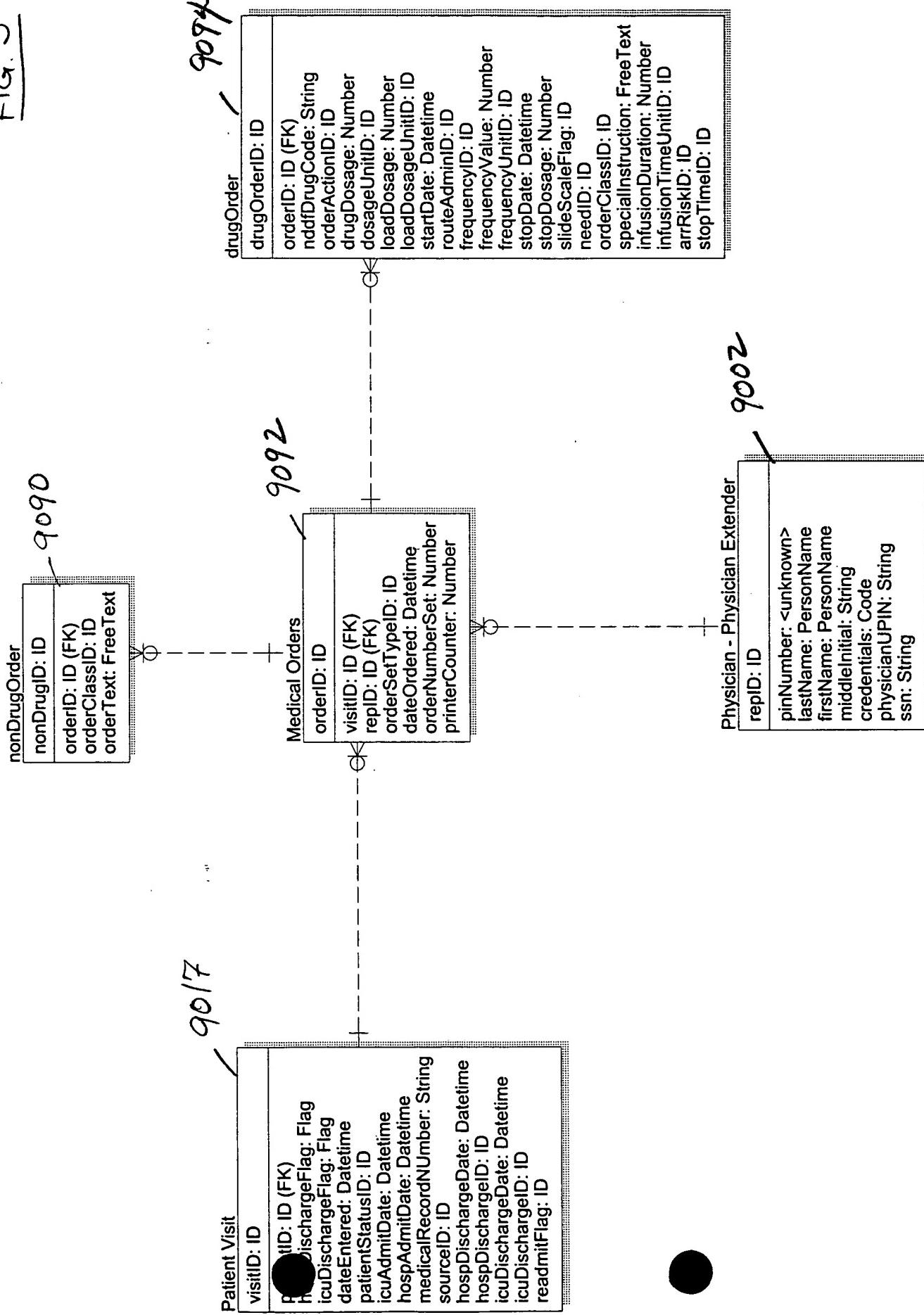


fig. 6

Physician - Patient Task

taskID: ID (PK)
visitID: ID (FK)
taskStatusID: ID
acuityID: ID
dateEntered: Datetime
dateCompleted: Datetime
taskDesc: Description

90969098

(N)

C

P

Patient Visit

visitID: ID (PK)
patientID: ID (FK)
hosspDischargeFlag: Flag
icuDischargeFlag: Flag
dateEntered: Datetime
patientStatusID: ID
icuAdmitDate: Datetime
hosspAdmitDate: Datetime
medicalRecordNumber: String
sourceID: ID
hosspDischargeDate: Datetime
icuDischargeDate: Datetime
icuDischargeID: ID
readmitFlag: ID

9017

respiratory

dateTaken: Datetime
respItemID: ID
respItemResult: Number
relatedInfo: Description

9101

laboratory

labID: ID (PK)
visitID: ID (FK)
specimenID: ID
dateLabTaken: Datetime
labCode: ID
labType: Number

9100

microbiology

microID: ID (PK)
visitID: ID (FK)
siteID: ID
dateTaken: Datetime
identifyData: Description

9104

otherLab

otherID: ID
otherName: Description

9102

microSensitivity

microOrganismID: ID (FK)
sensitivityLevelID: ID
antibioticID: ID

9108

microOrganism

microOrganismID: ID (PK)
microOrganismID: ID

9106

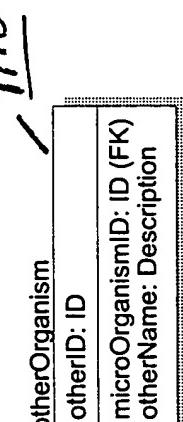
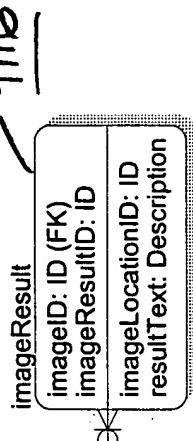
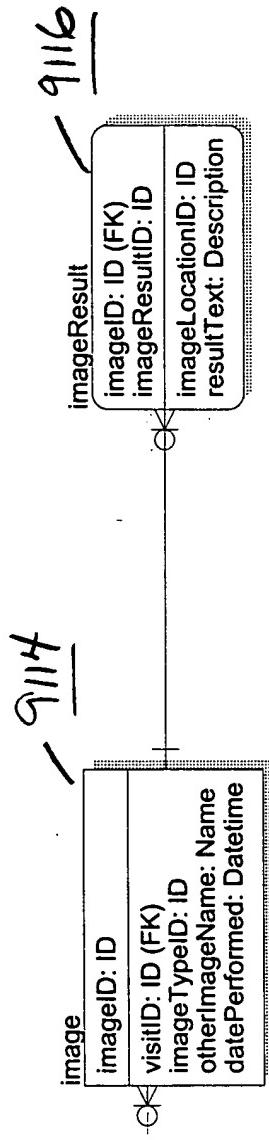
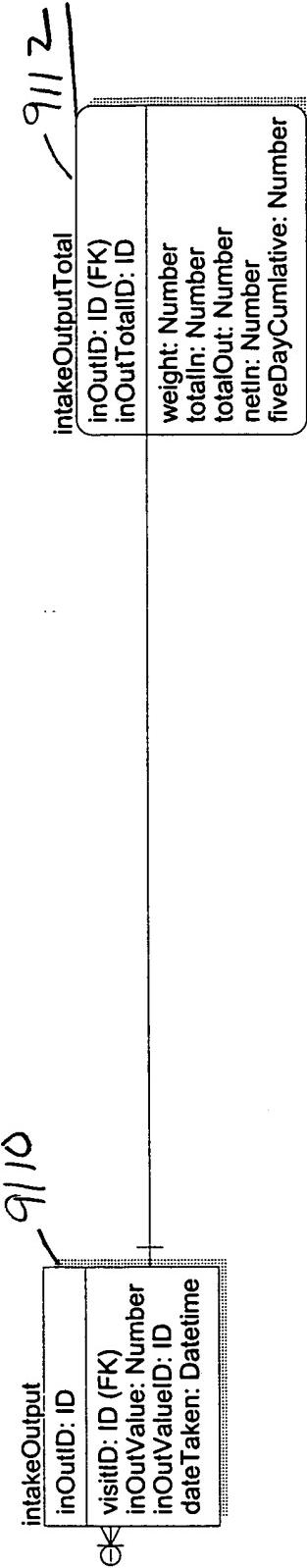


Fig. 6A

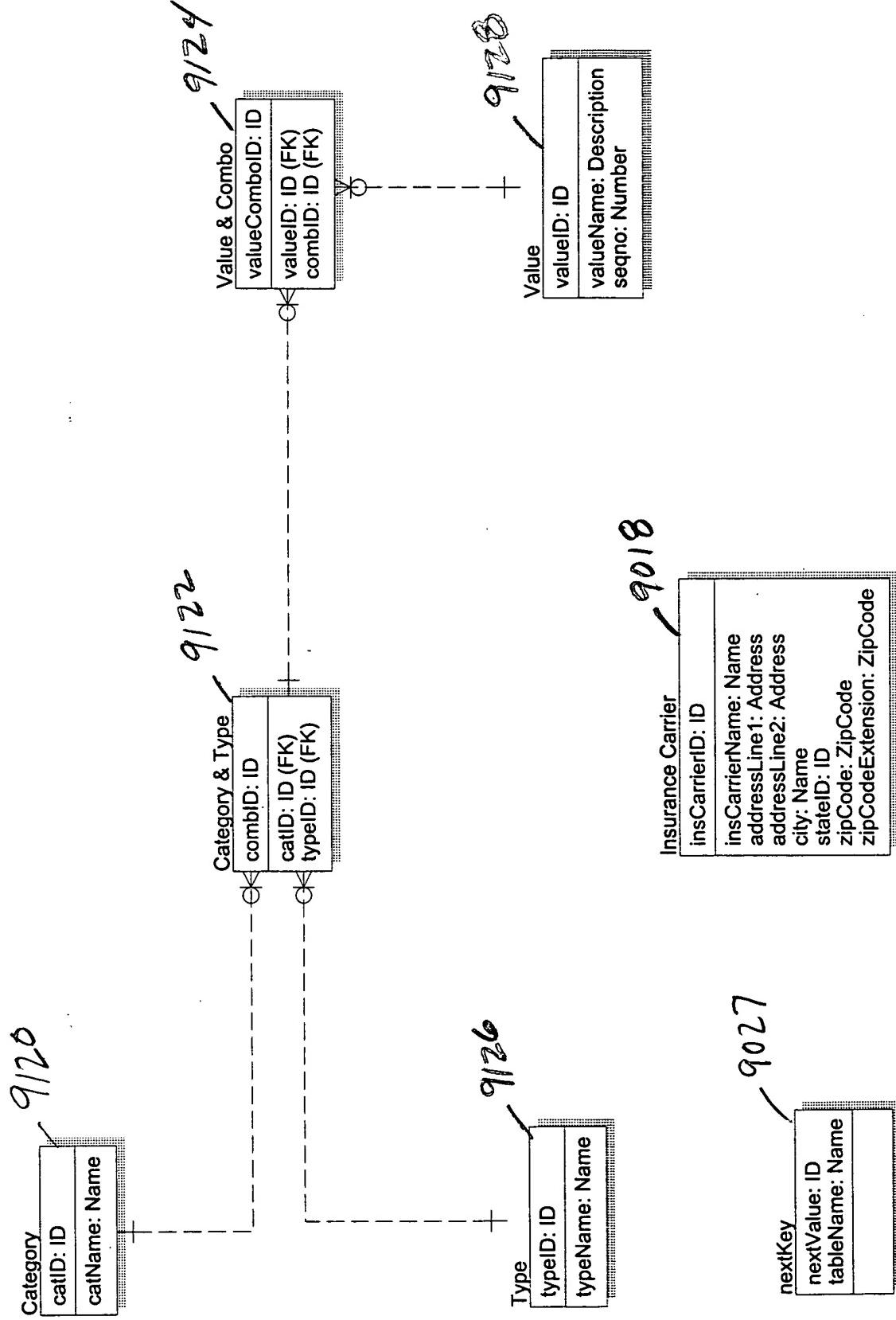
Fig. 7

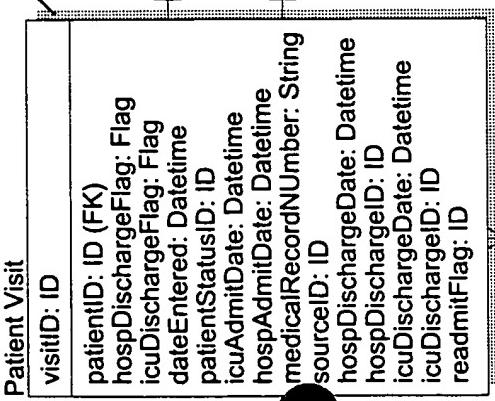
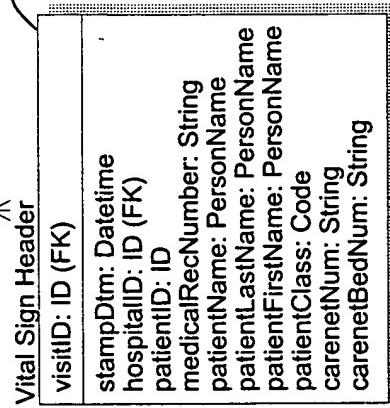
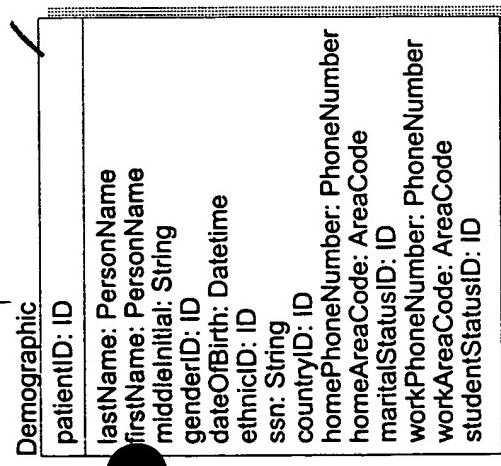
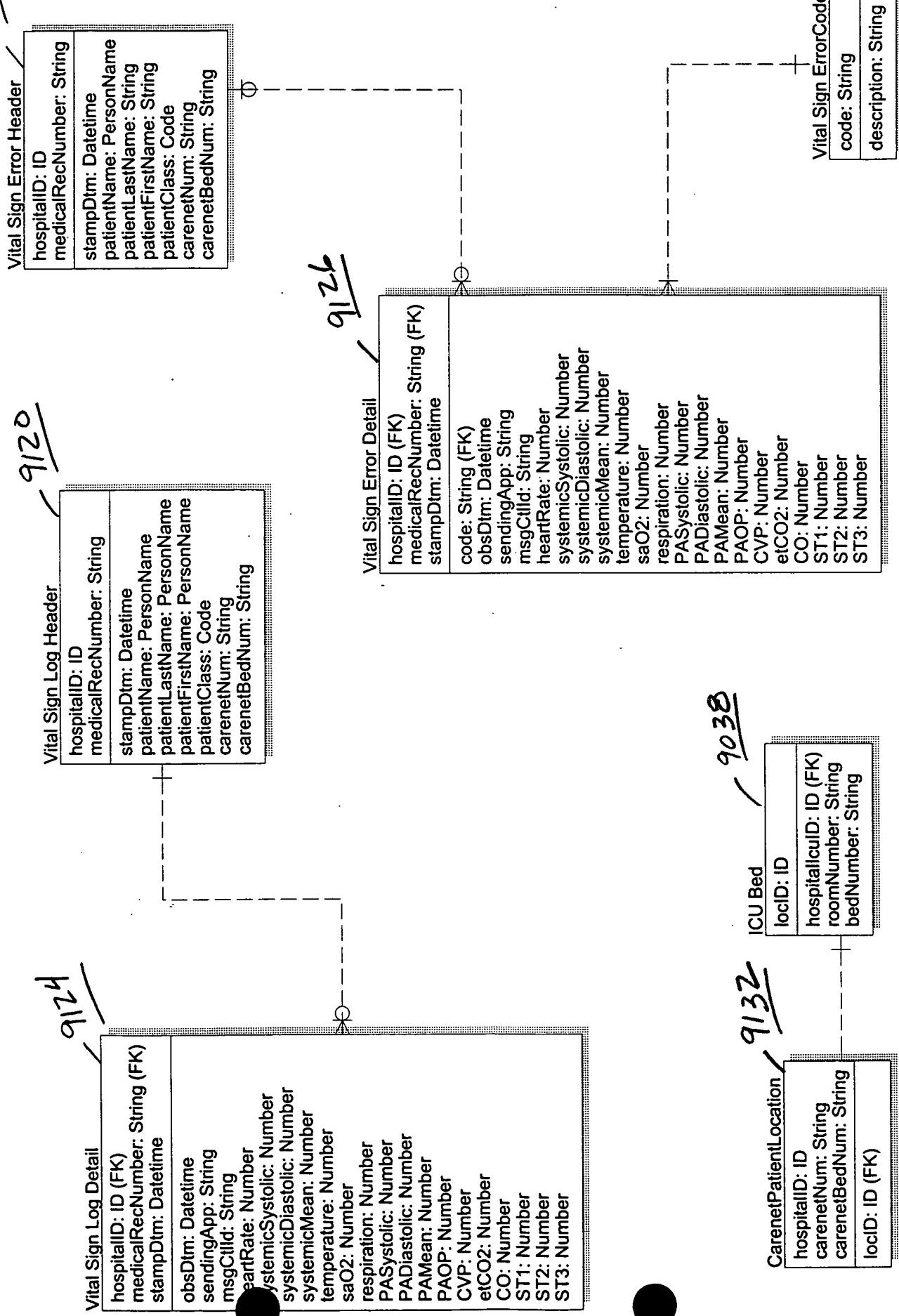
Fig. 890191209010P9034

FIG. 8A

Distributed Architecture

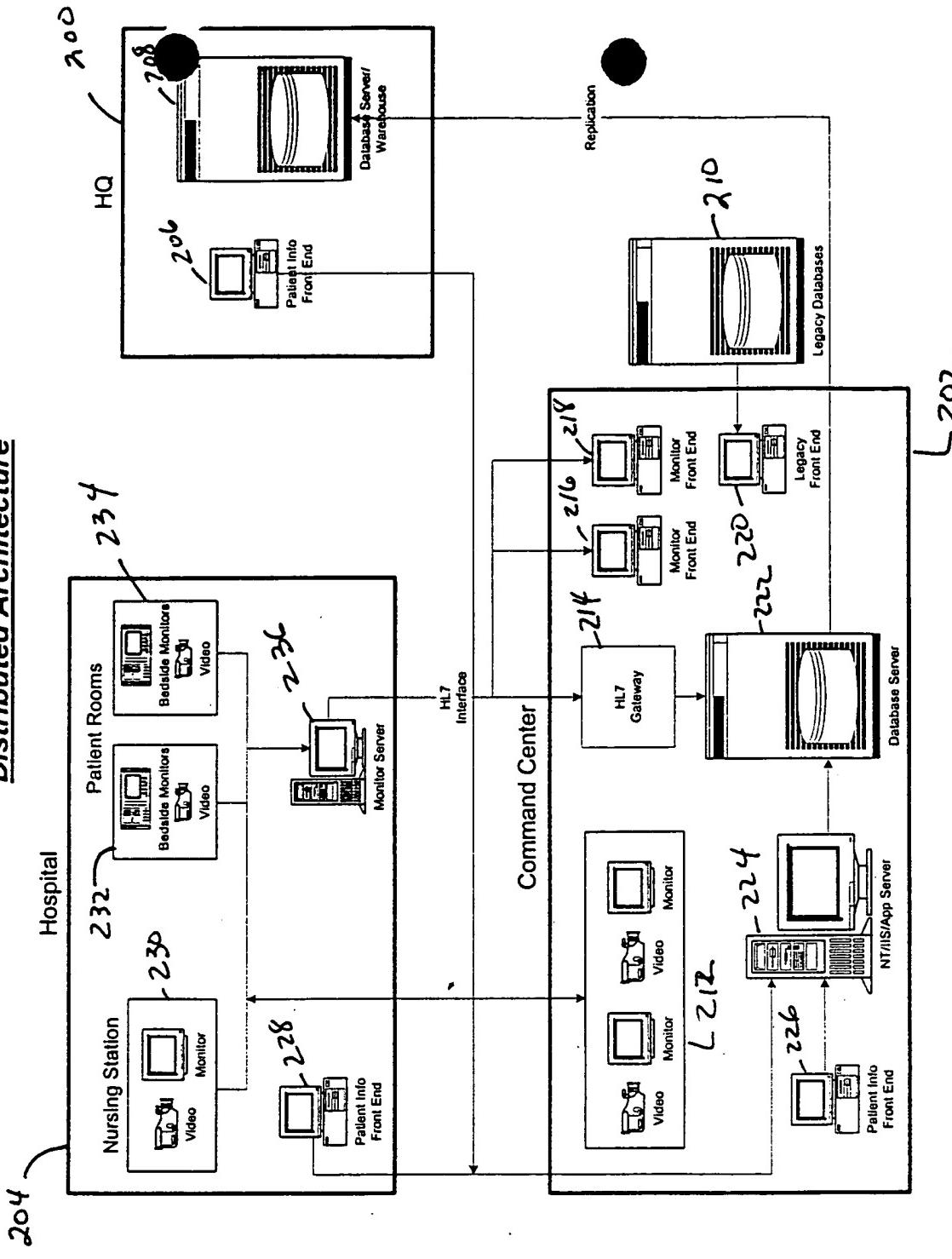
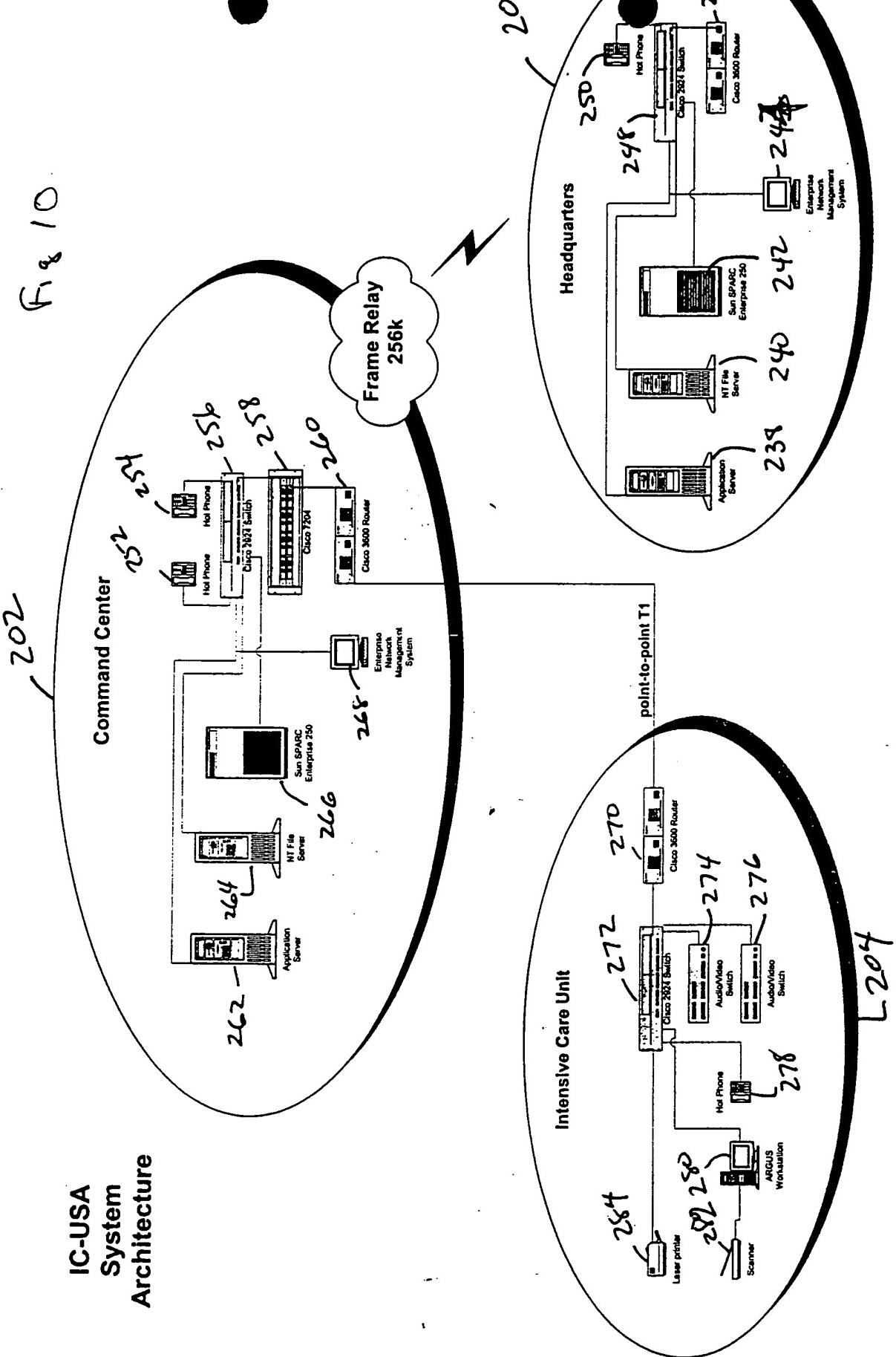


Fig - 9

IC-USA System Architecture

Fig 10



Video Conferencing/Surveillance/Imaging Components

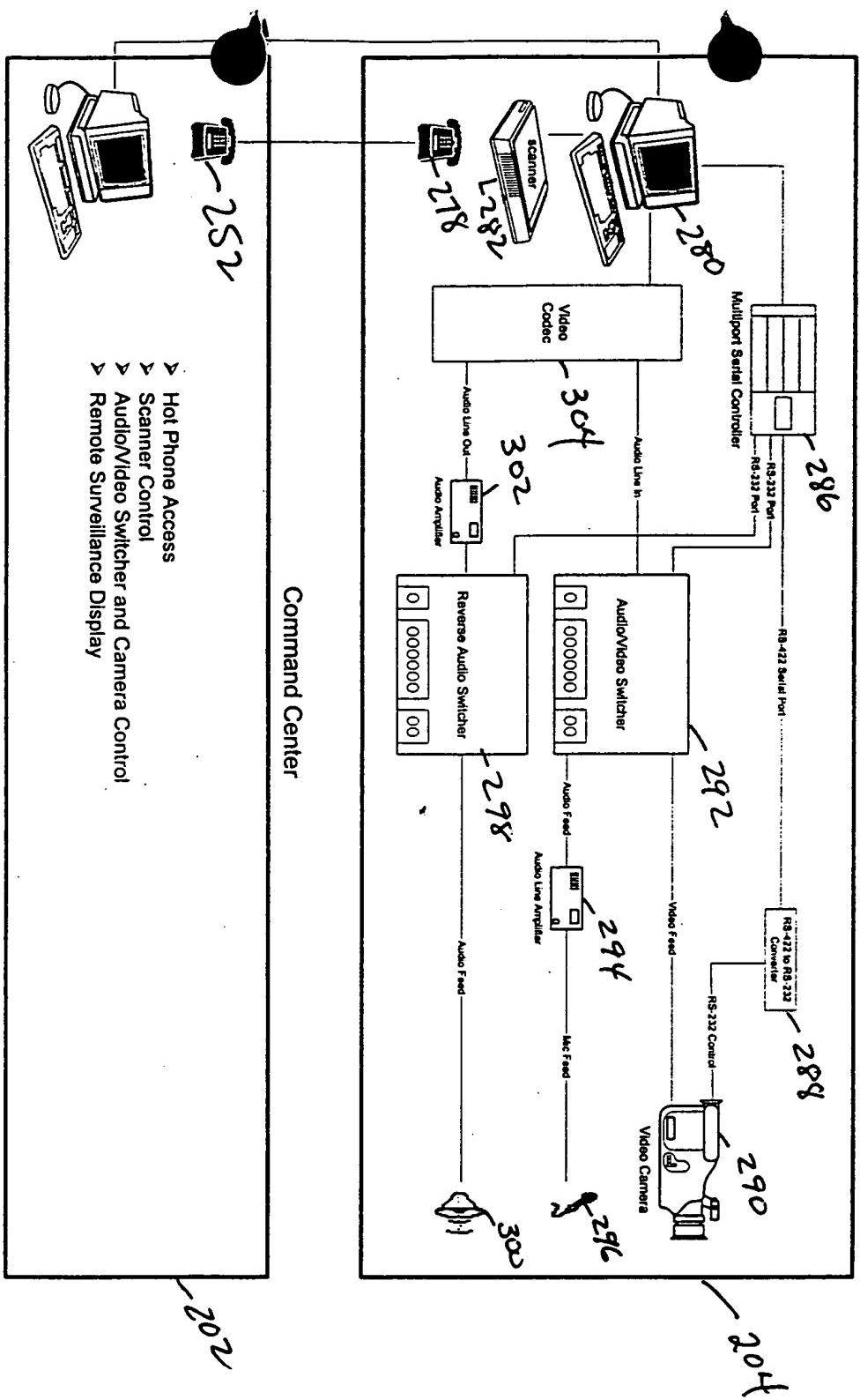


Fig 11

Vital Signs Data Flow

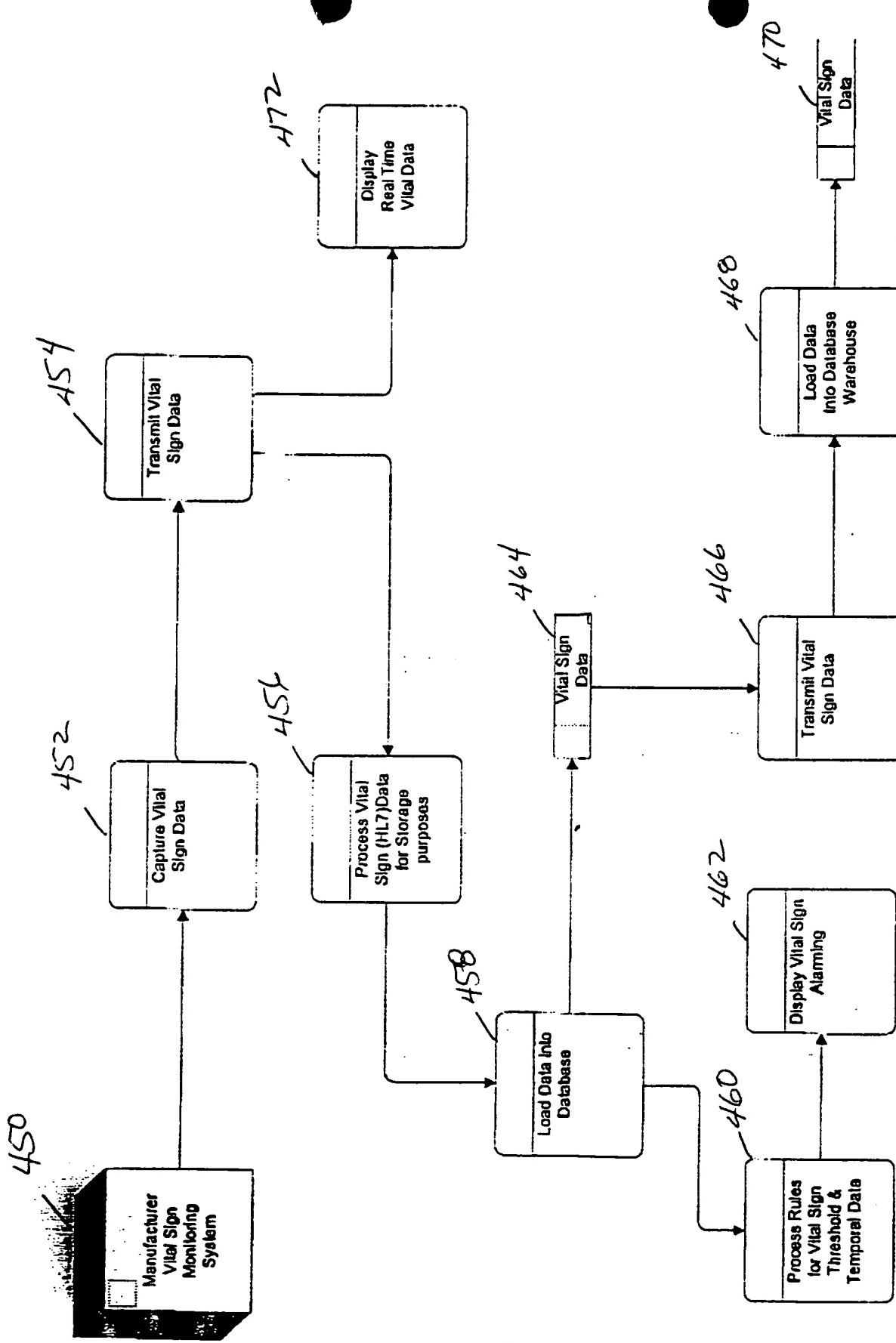


fig 12

Patient Interaction Data Flow

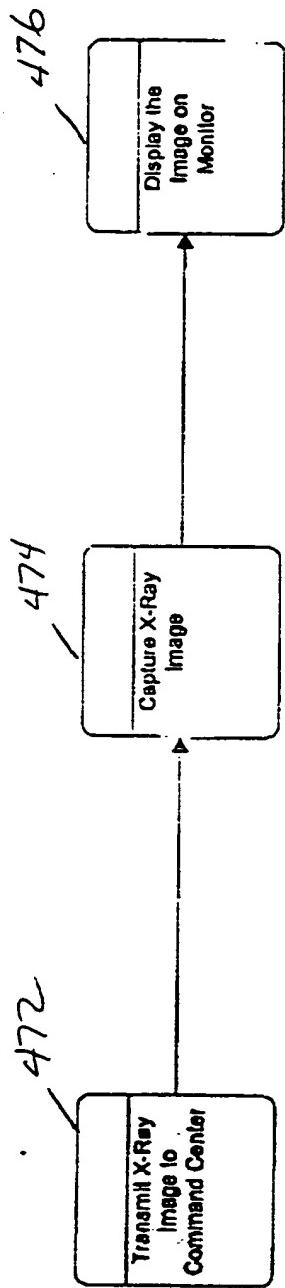


Fig 13A

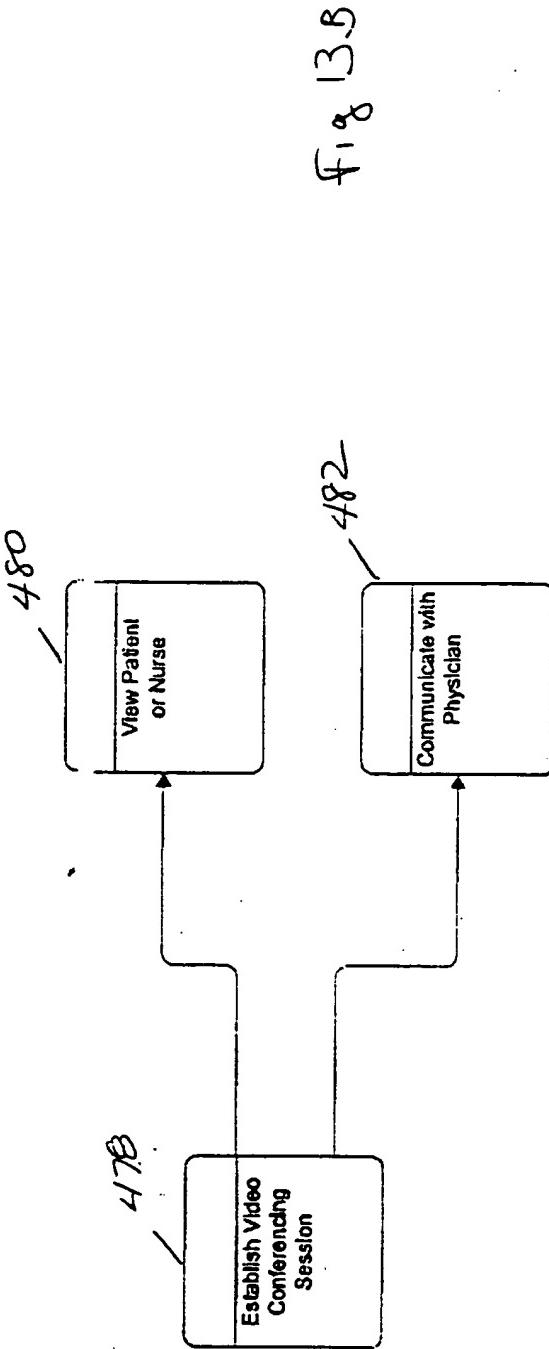


Fig 13B

PHYSICIAN RESOURCES AND ORDER WRITING DATA INTERFACE

Fig 14

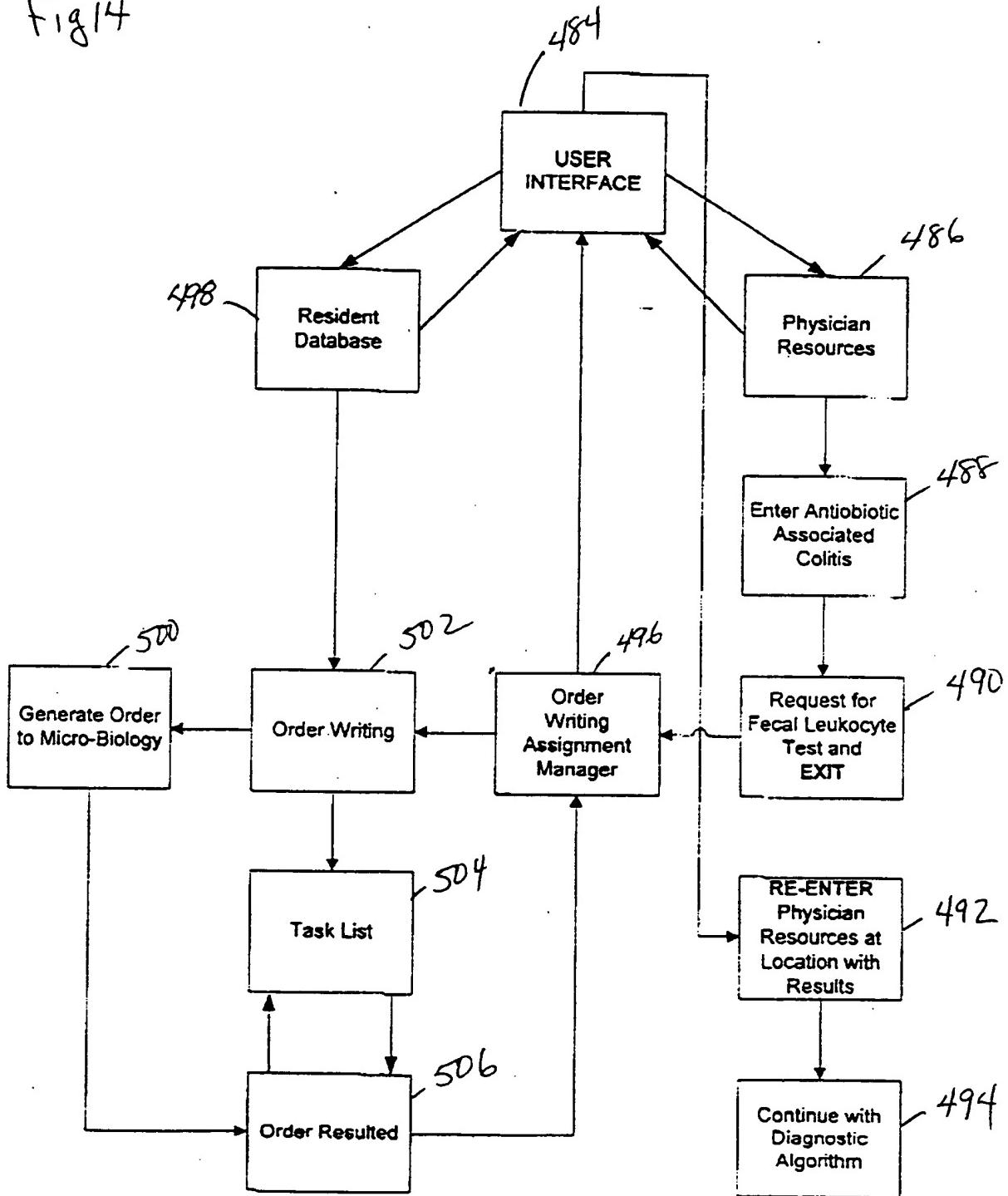
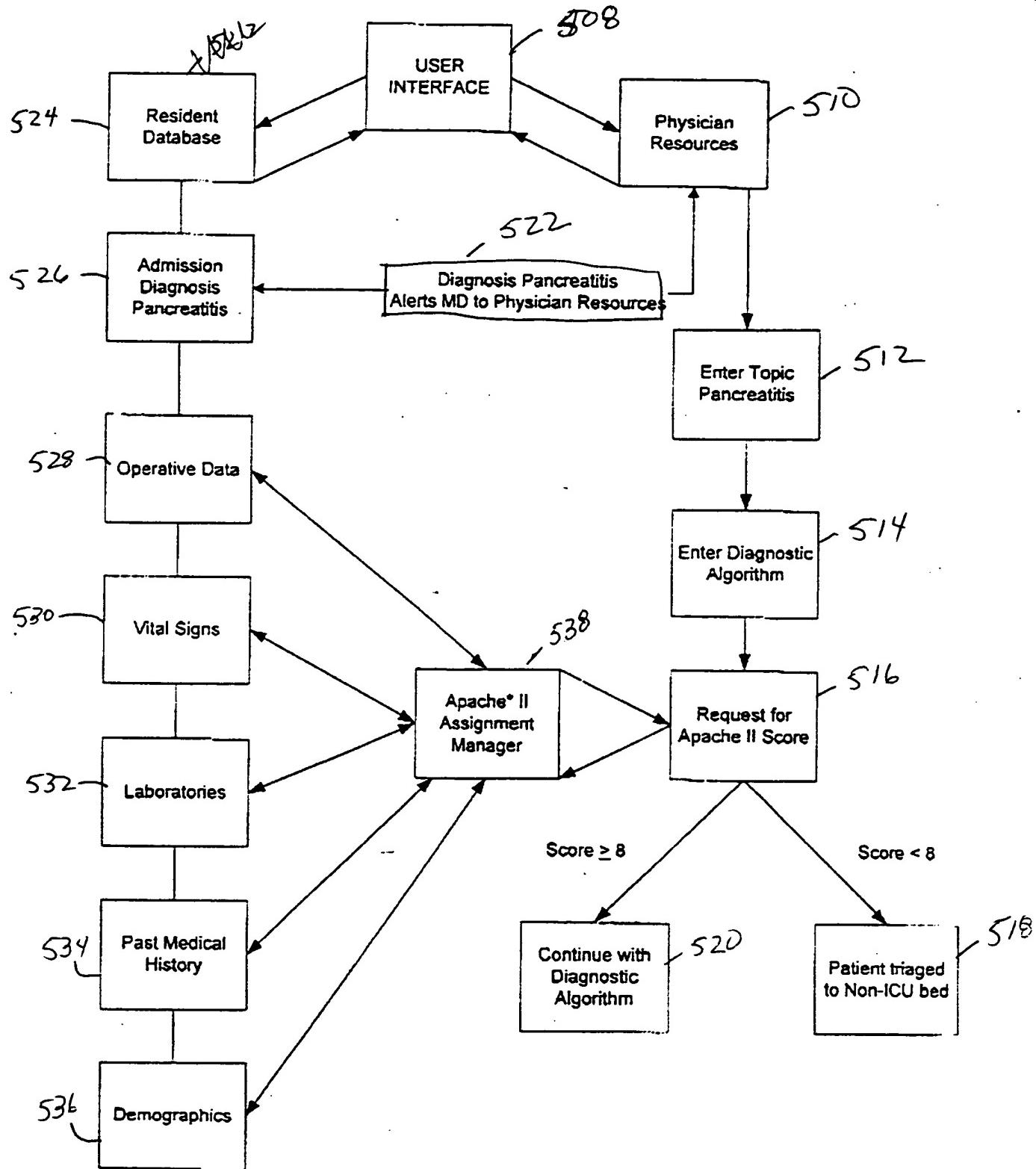


Fig 15

PHYSICIAN RESOURCES DATABASE DATA INTERFACE



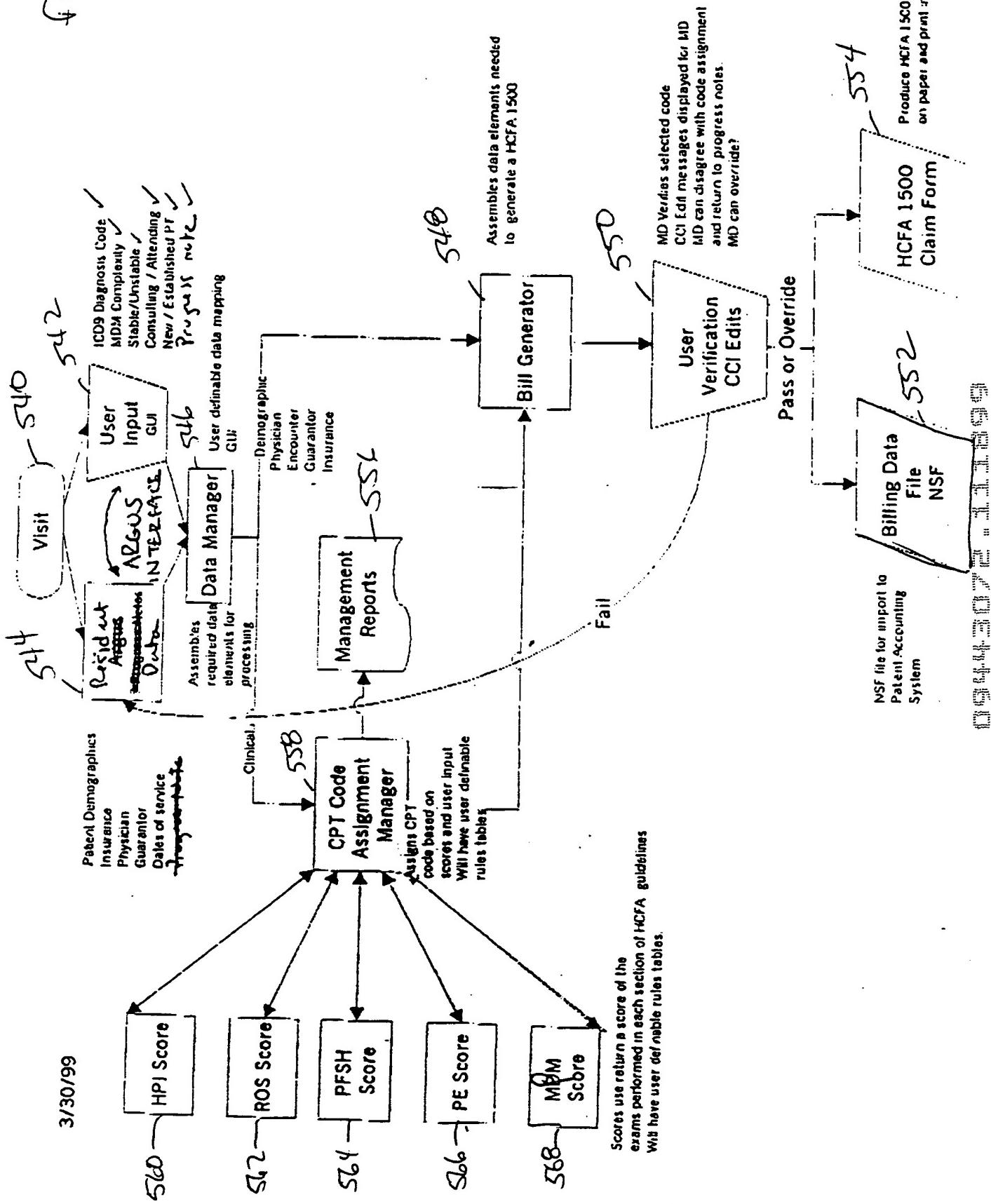
*Assigns Apache II
Score based upon
weighted composite
of 25 variables

Automated Coding / Billing Work Flow / Data Flow

200 2

ICU54

02



Order Writing Flow Sheet

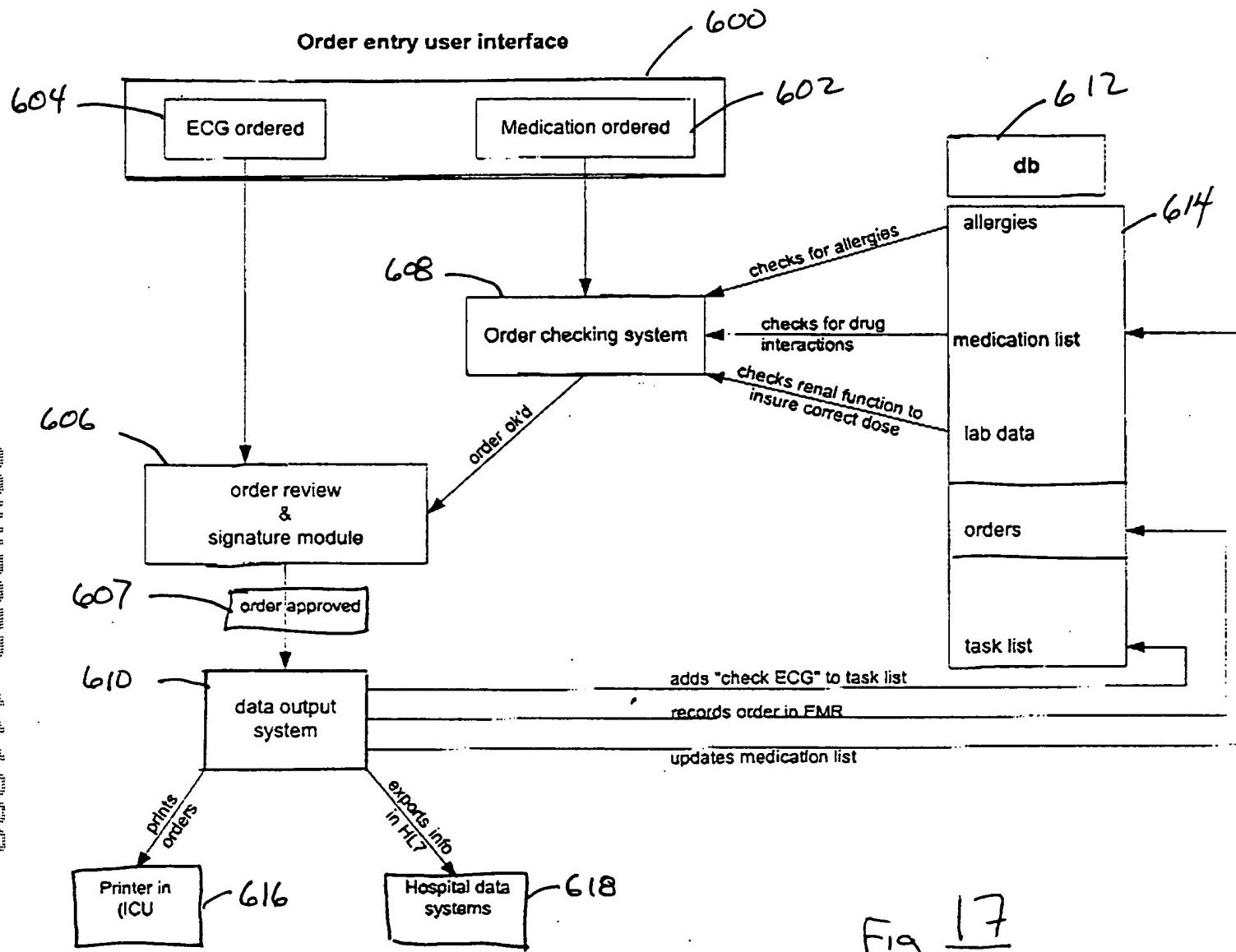


Fig. 17

Event Log

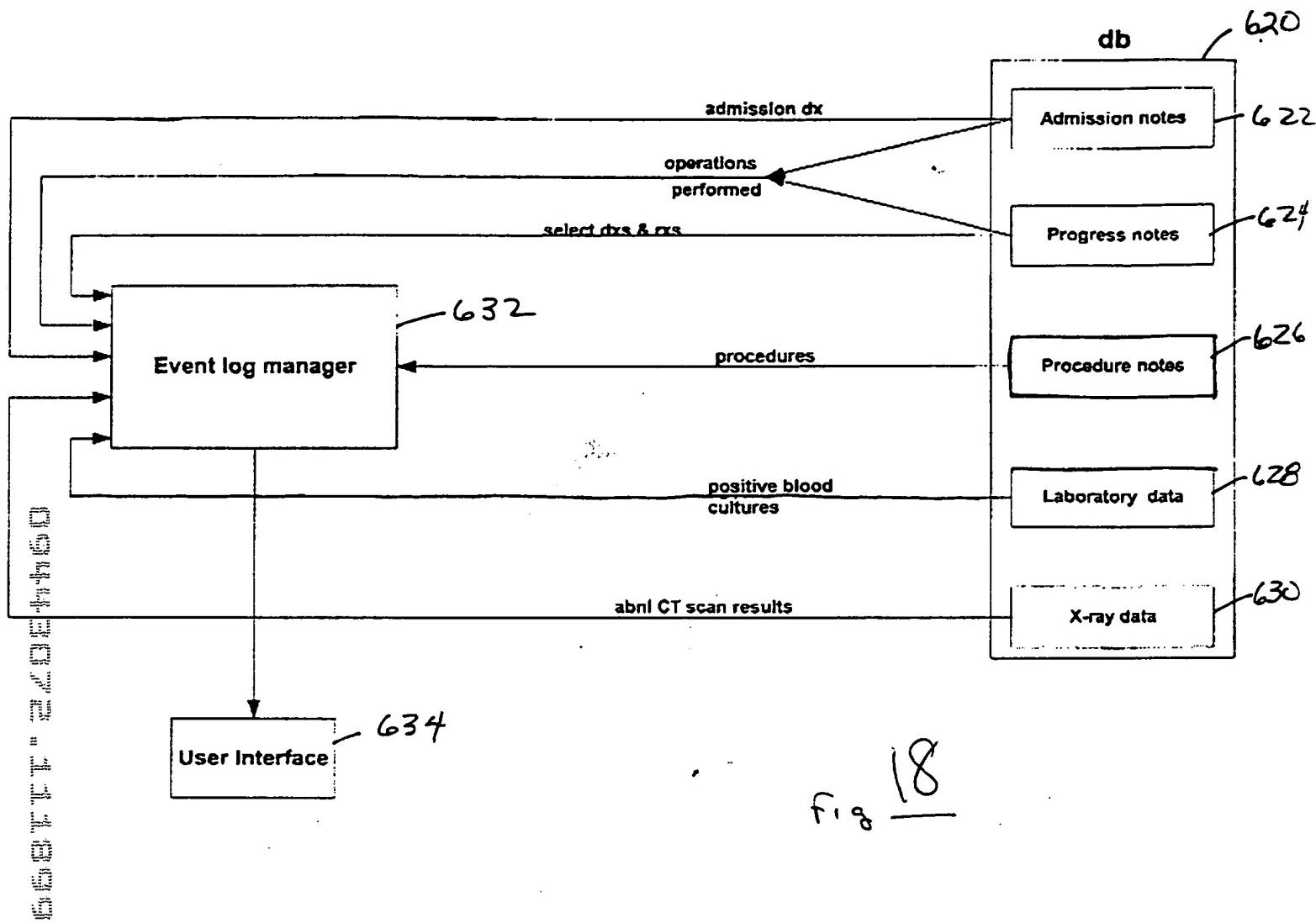
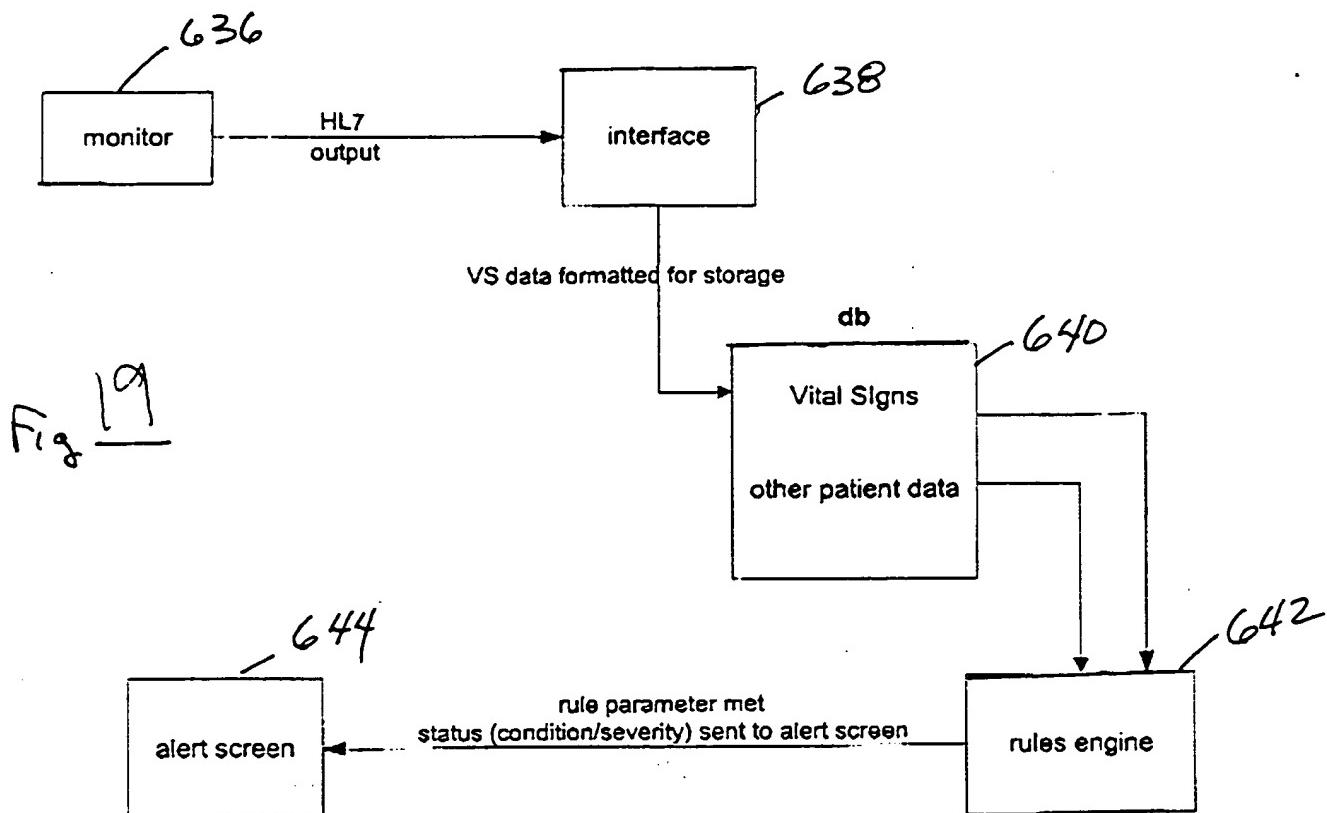


fig 18

The event log presents in a single location key clinical information from throughout a patient's stay in the ICU. The event log provides care givers with a snapshot view of all salient events since admission. All relevant data are presented chronologically.

SMART ALARMS

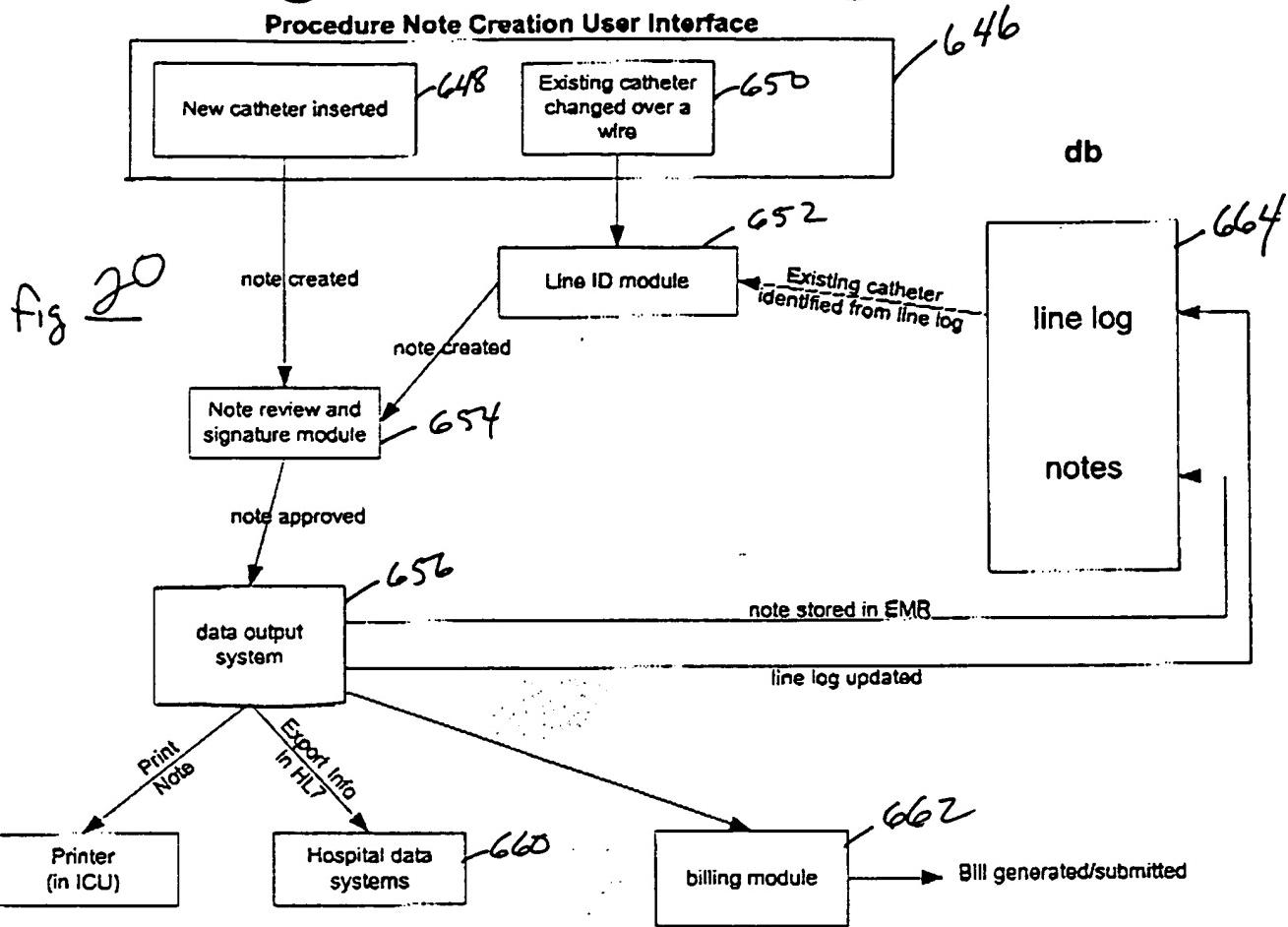


The smart alarm system constantly monitors physiologic data (collected once a minute from the bedside monitors) and other clinical information. The rules engine searches for patterns of data indicative of clinical deterioration. Examples include changes in vital signs over time (e.g. a 25% increase in the HR and a 20% decrease in BP), parallel reductions in urine output and central venous pressure that suggest developing hypovolemia, and progressive reductions in hemoglobin concentration over time that indicate a need to exclude active bleeding (and a possible need to administer blood). When rule conditions are met, relevant information is displayed on the system "alert screen".

The rationale underlying smart alarms is to facilitate detection of impending problems and to automate problem detection.

The system balances alarm sensitivity and specificity in order to maximize the benefit of the alarms to the intensivist.

Procedure Note - Line Log



The line log contains, for each patient, relevant information about all indwelling catheters, including type and location of catheter, insertion date, the most recent date that the catheter was changed over a wire, and the date the catheter was removed. This information helps clinicians evaluate the likelihood that a given catheter is infected and guides management.

Acalculous Cholecystitis

Figure 21

S 802

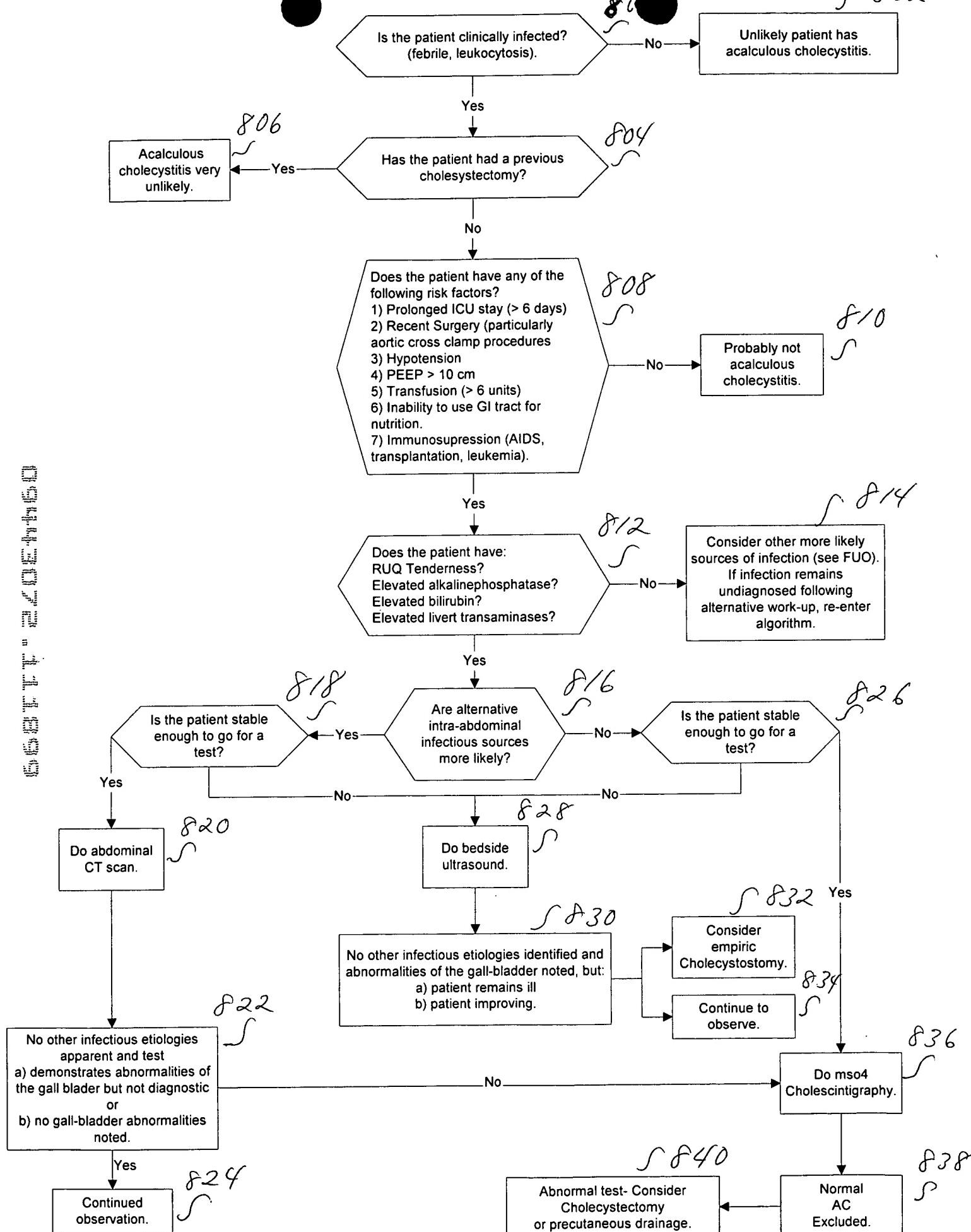


Figure 22

900

Adrenal insufficiency

902

Is the patient hypotensive (systolic <90 mmhg) and/or been on pressors for ≥ 48 hours?

no

Adrenal insufficiency unlikely

yes

904

Is there an obvious cause for the hypotension and/or pressor need?

- Hypovolemia
- Myocardial Dysfunction
- Spinal injury

yes

no

Treat underlying cause first; If cause reversed and hypotension / pressor need persists

916

908

1. Has patient been treated with steroids within the last 6 months for ≥ 2 weeks?

910

2. Does the patient have
 1) Hyponatremia ($\text{Na} < 130 \text{ mmol/L}$) and
 2) Hyperkalemia ($>5 \text{ mmol/L}$)

Results of Cosyntropin Stim test

- 1) What was the baseline cortisol level? (prior to cosyntropin) _____ mcg/dL?
- 2) What was the cortisol level 30 minutes following cosyntropin stimulation? _____ mcg/dL?

914

Administer cosyntropin 250 mcg IV

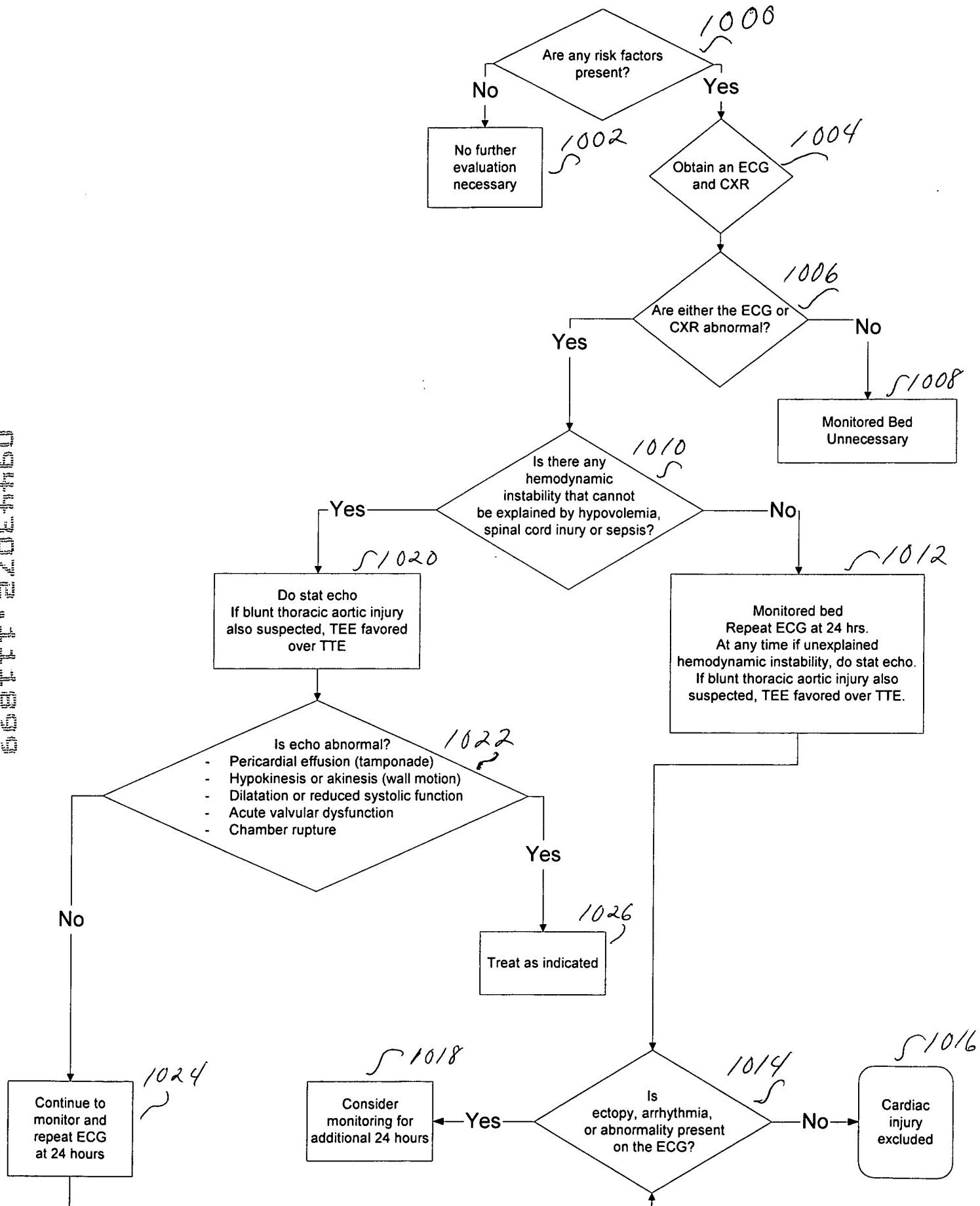
912

3. Was the patient anticoagulated or coagulopathic prior to developing hypotension / pressor needs?

918

Treatment Action

Figure 23

Blunt Cardiac Injury

卷之三

CANDIDURIA

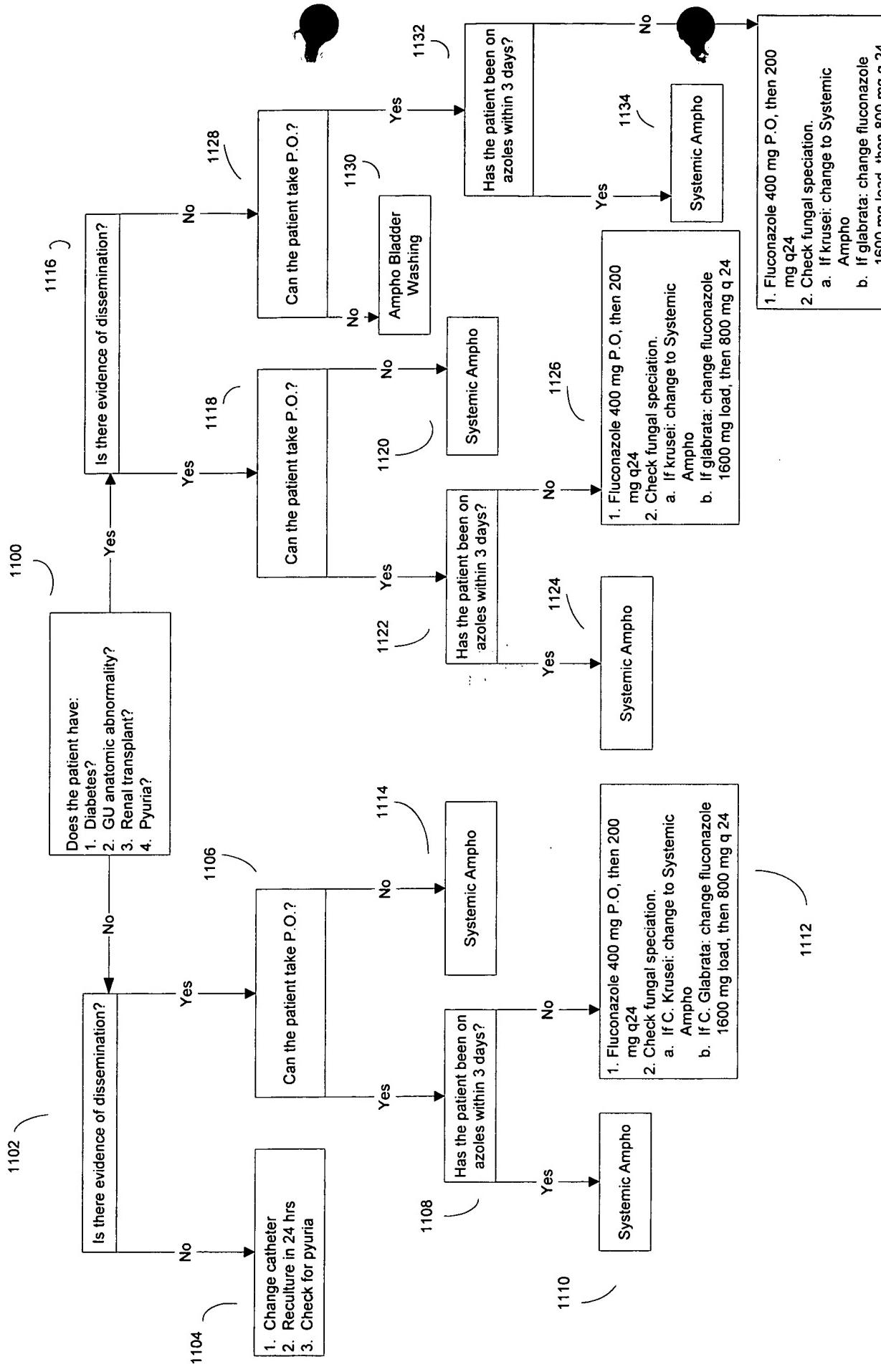
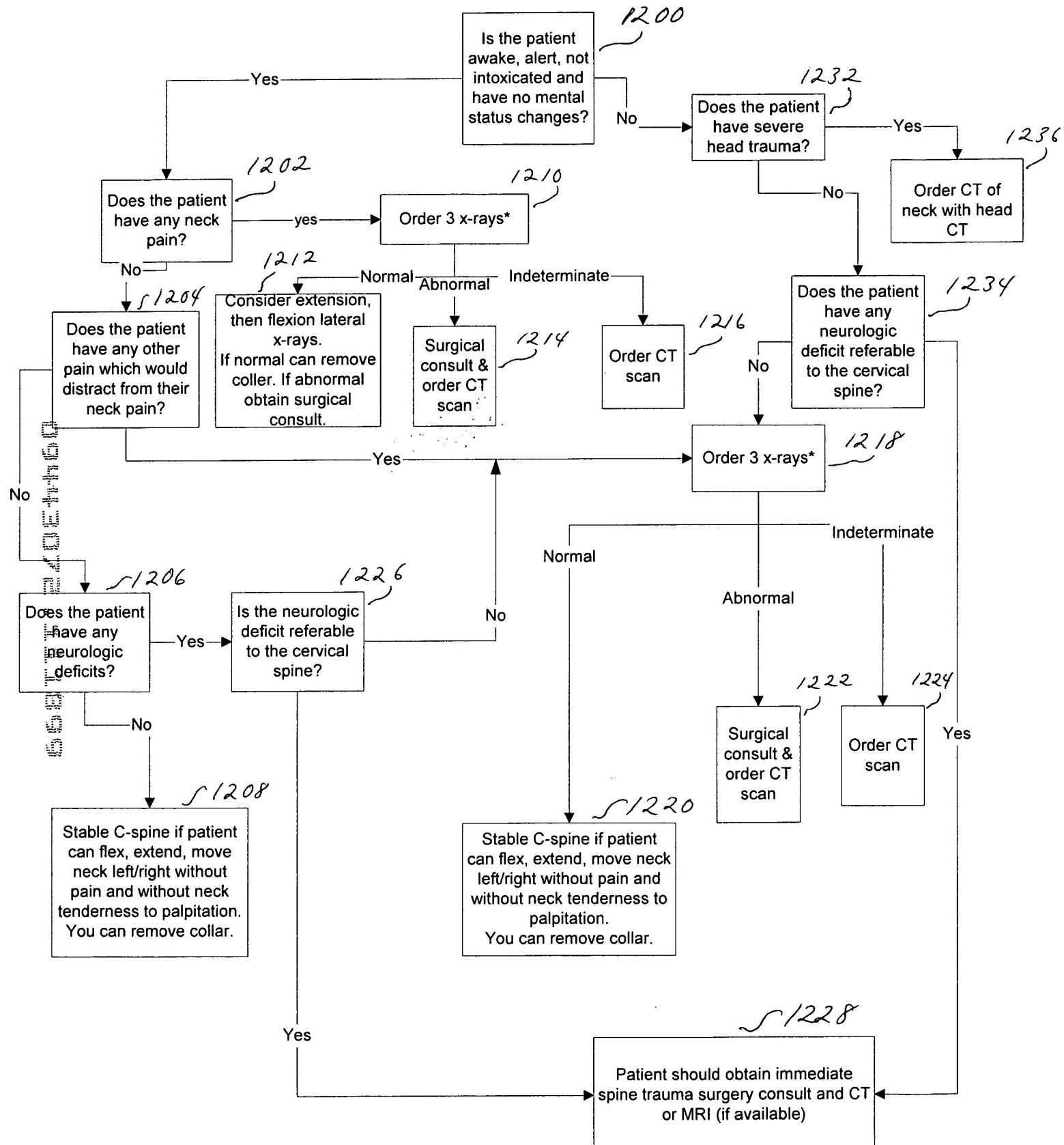


Figure 24. Figure 24.

Cervical Spine Injury

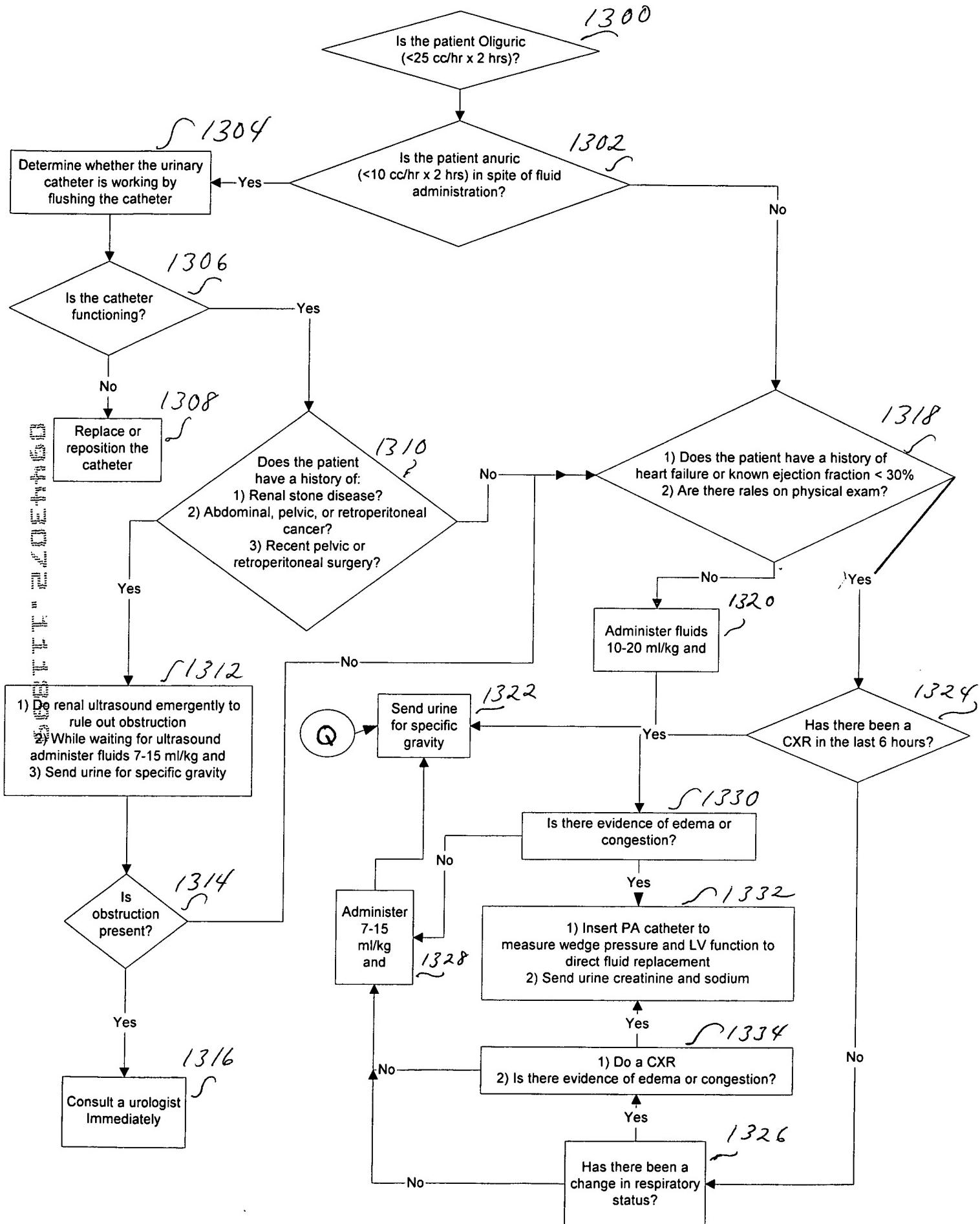
Figure 25



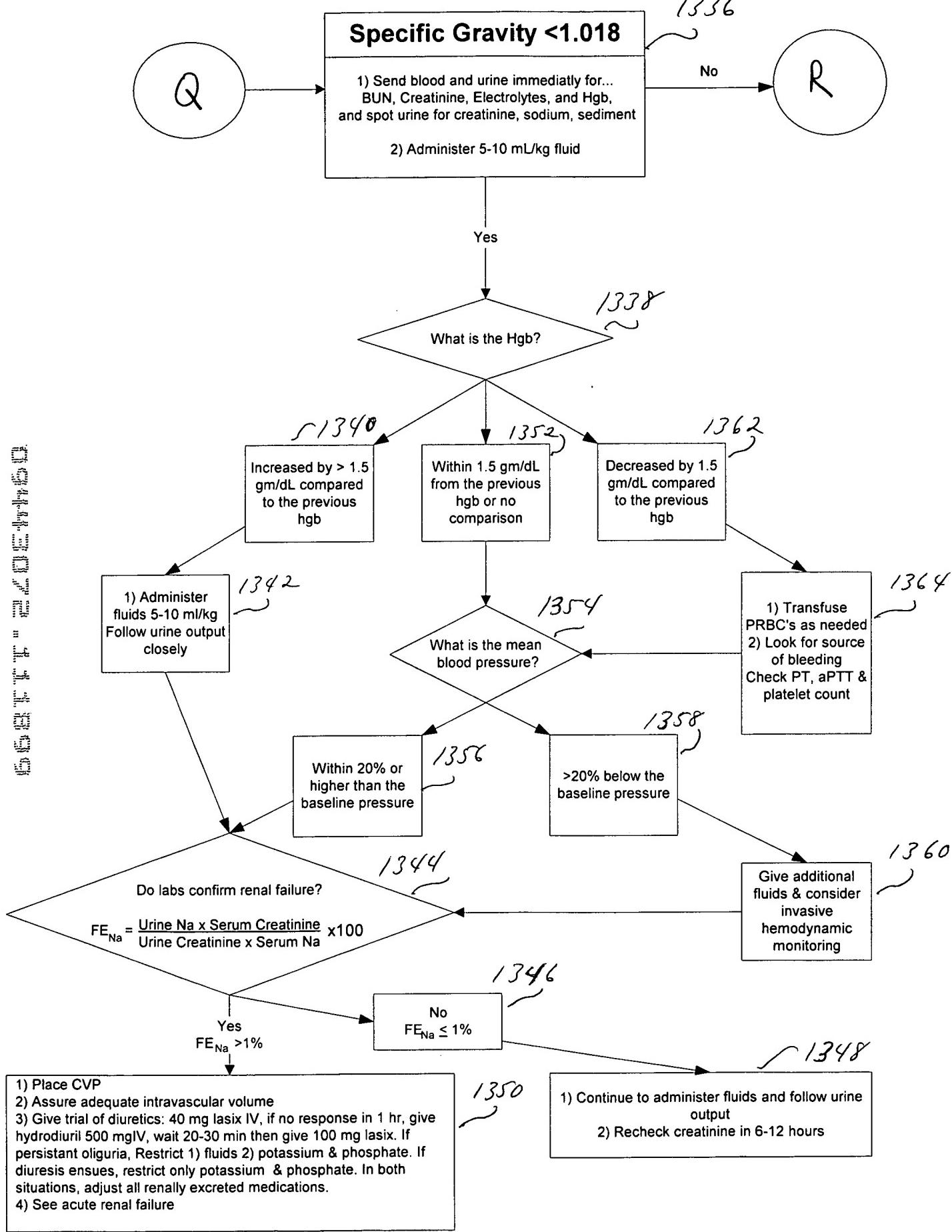
* 1) Lateral view revealing the base of the occiput to the upper border of the first thoracic vertebra, 2) anteroposterior view revealing spinous processes of the second cervical through the first thoracic vertebra, and 3) an open mouth odontoid view revealing the lateral masses of the first cervical vertebra and entire odontoid process.

Oliguria (page 1)

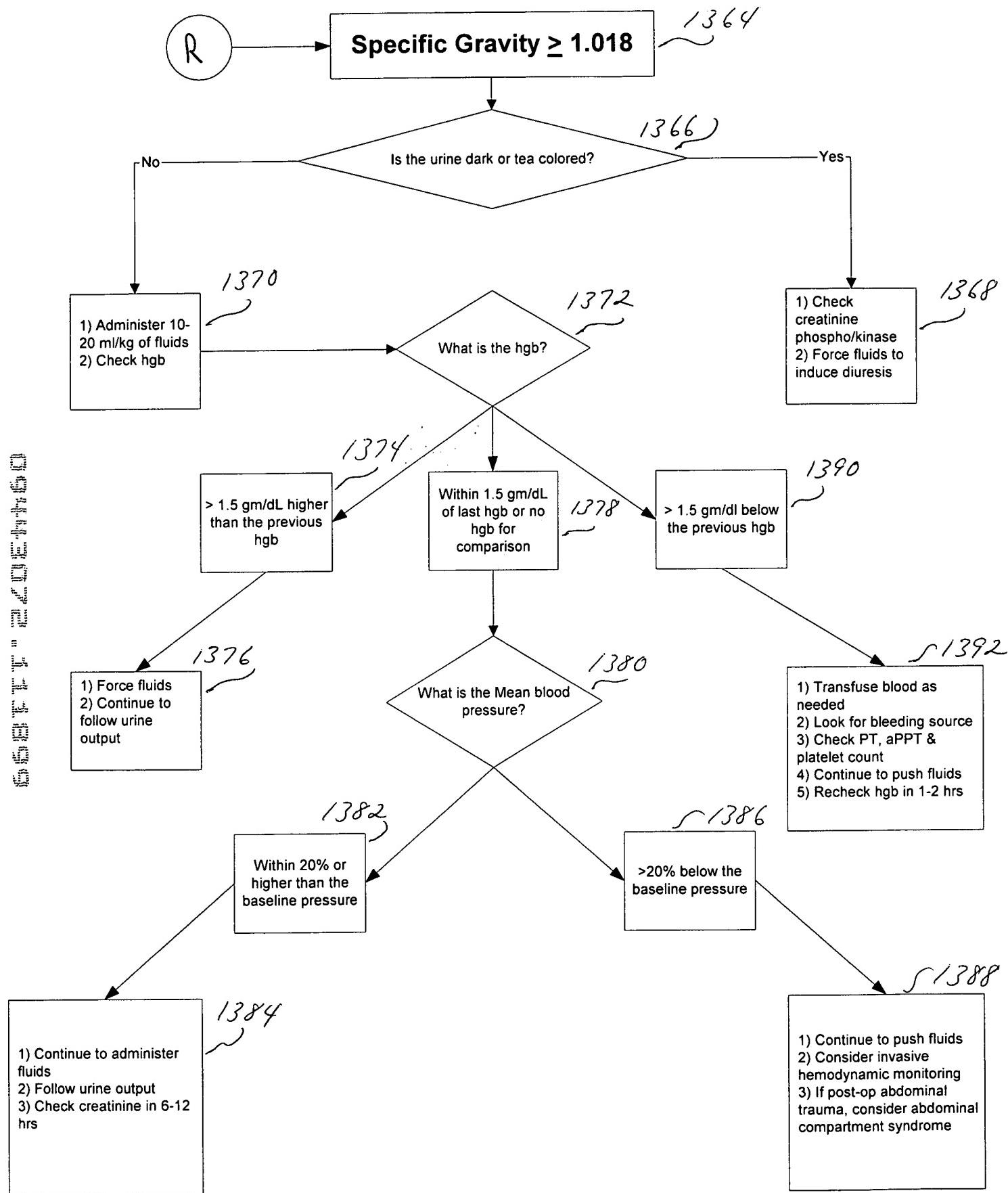
Figure 26



Oliguria (page 2)



Oliguria (page 3)



OPEN FRACTURES

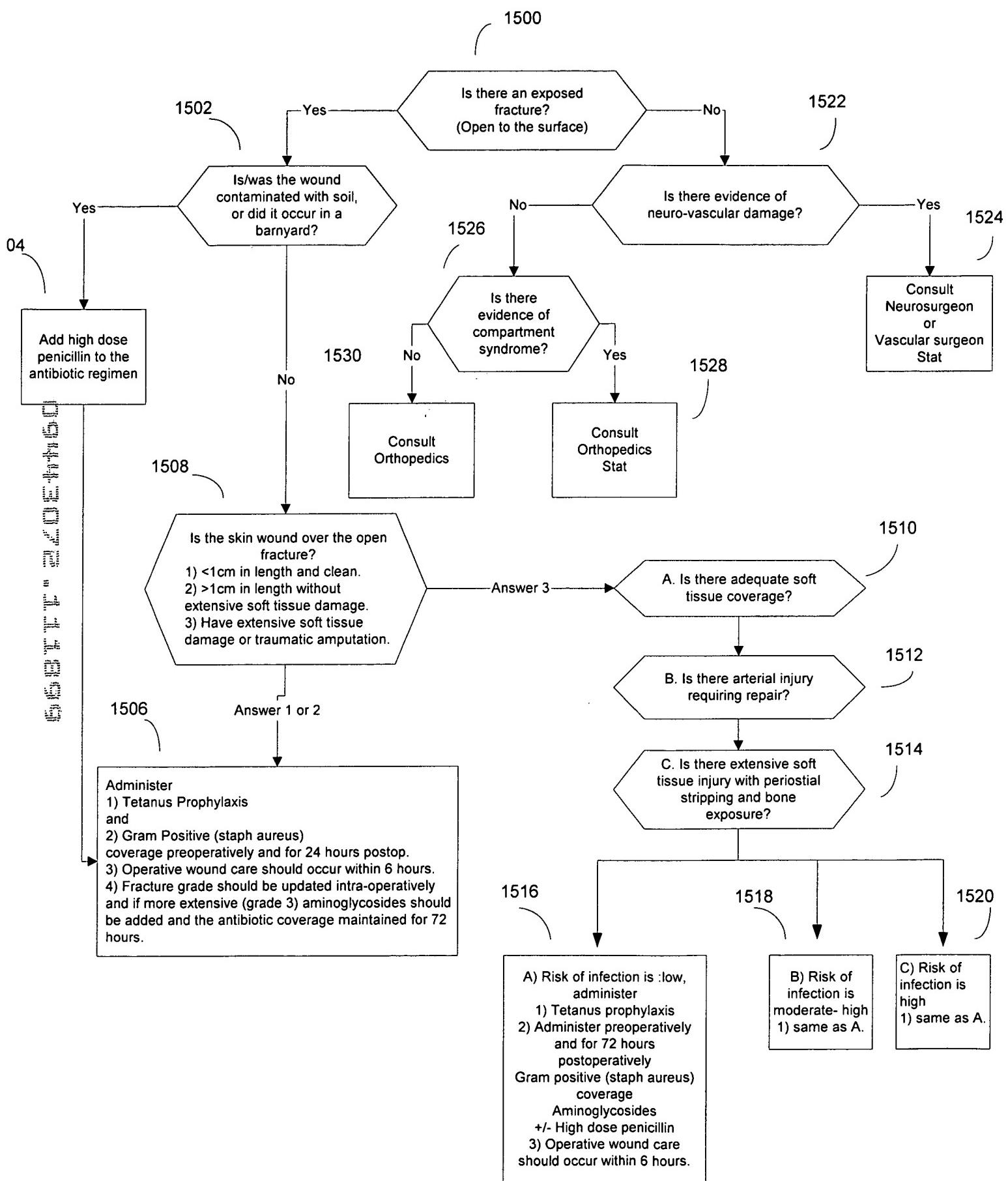
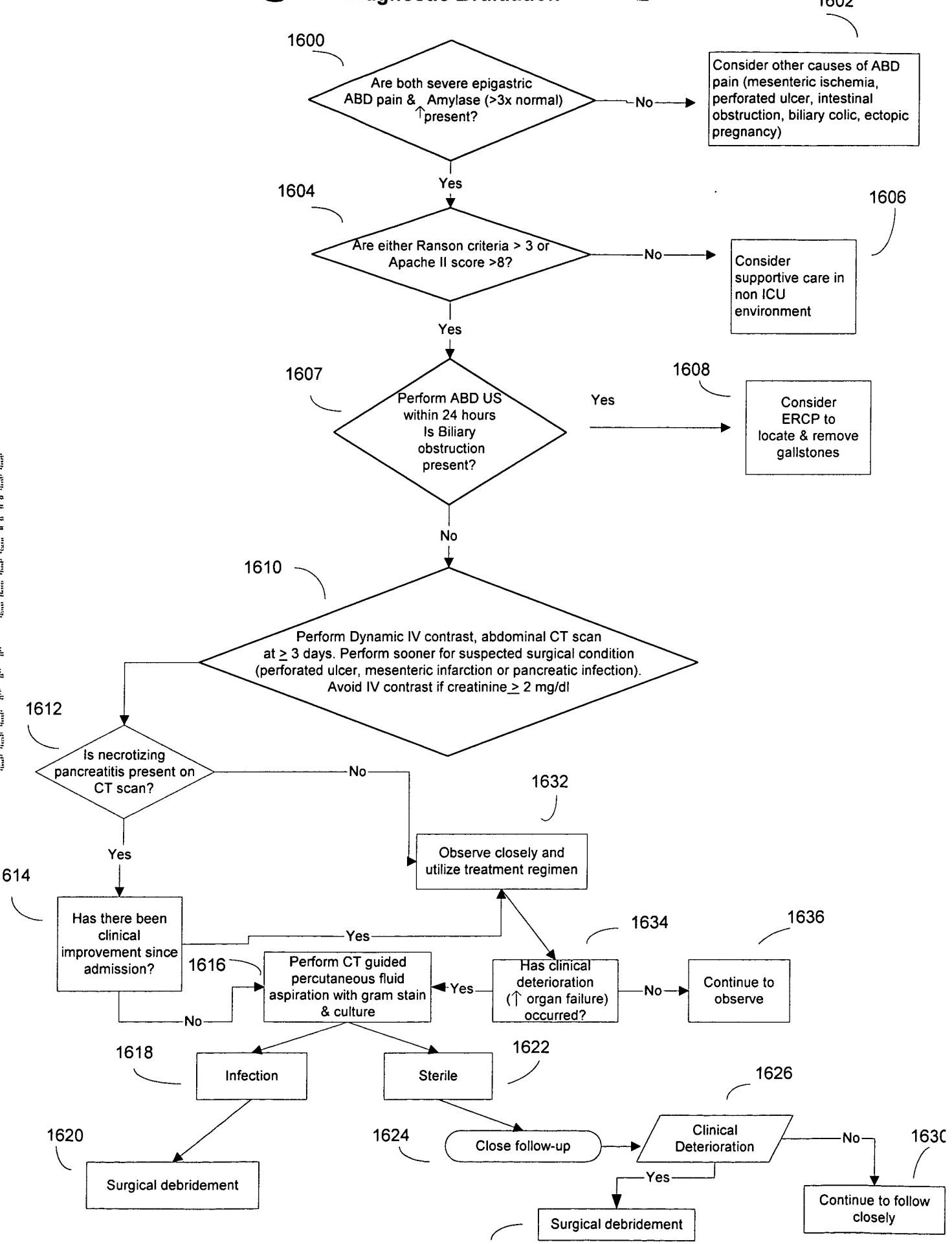


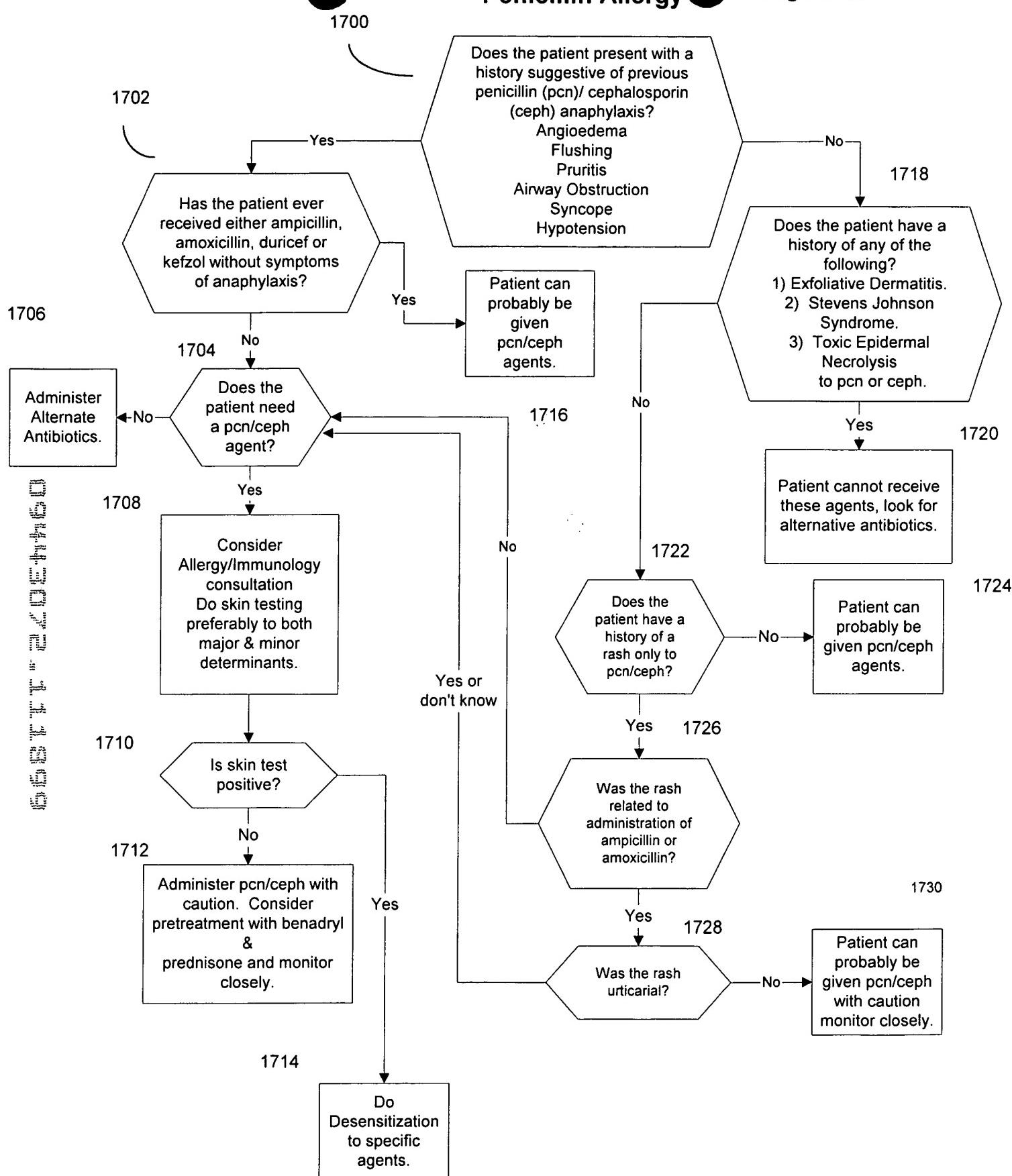
Figure 28

PANCREATITIS Diagnostic Evaluation



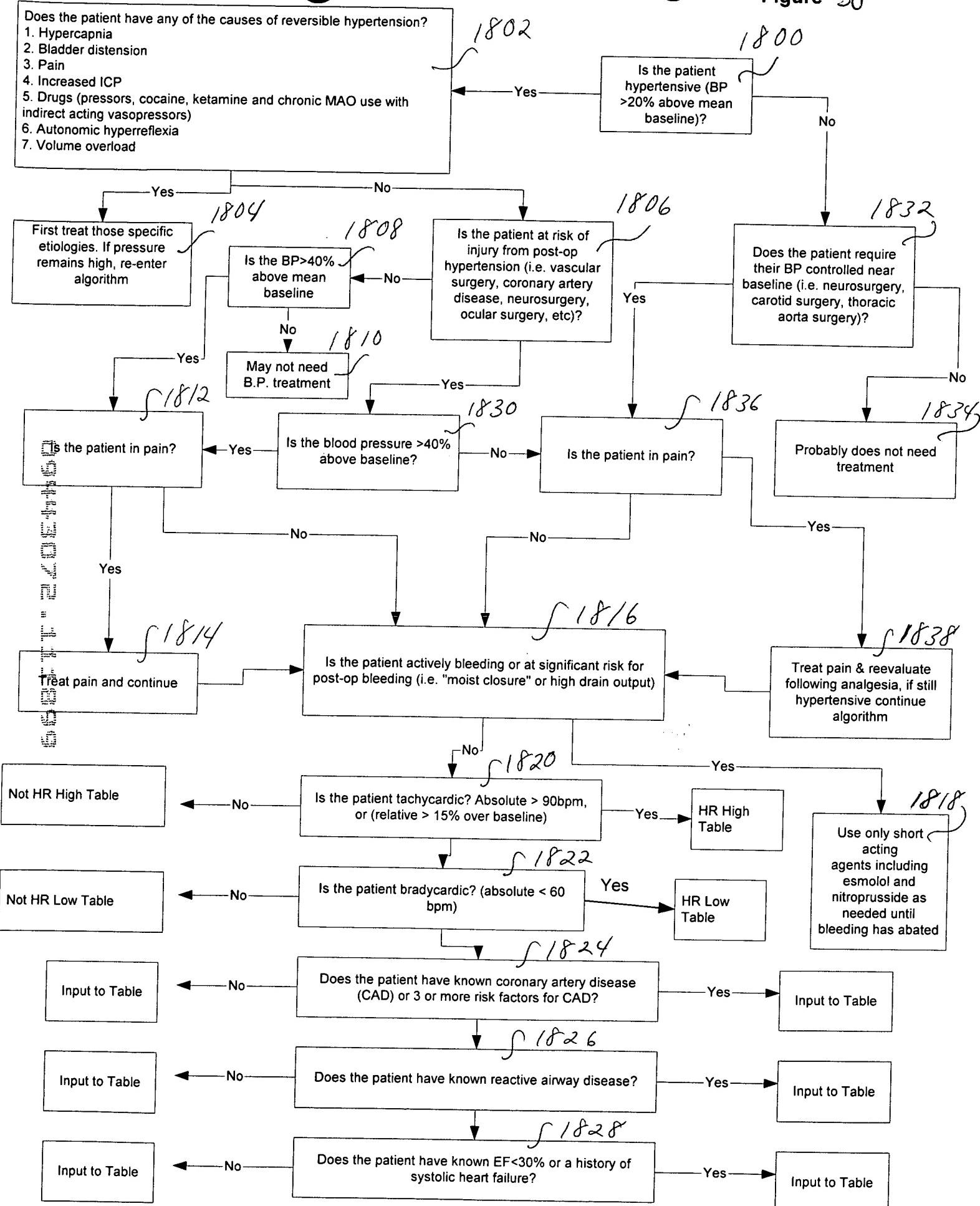
Penicillin Allergy

Figure 29



Post-Op Hypertension

Figure 30



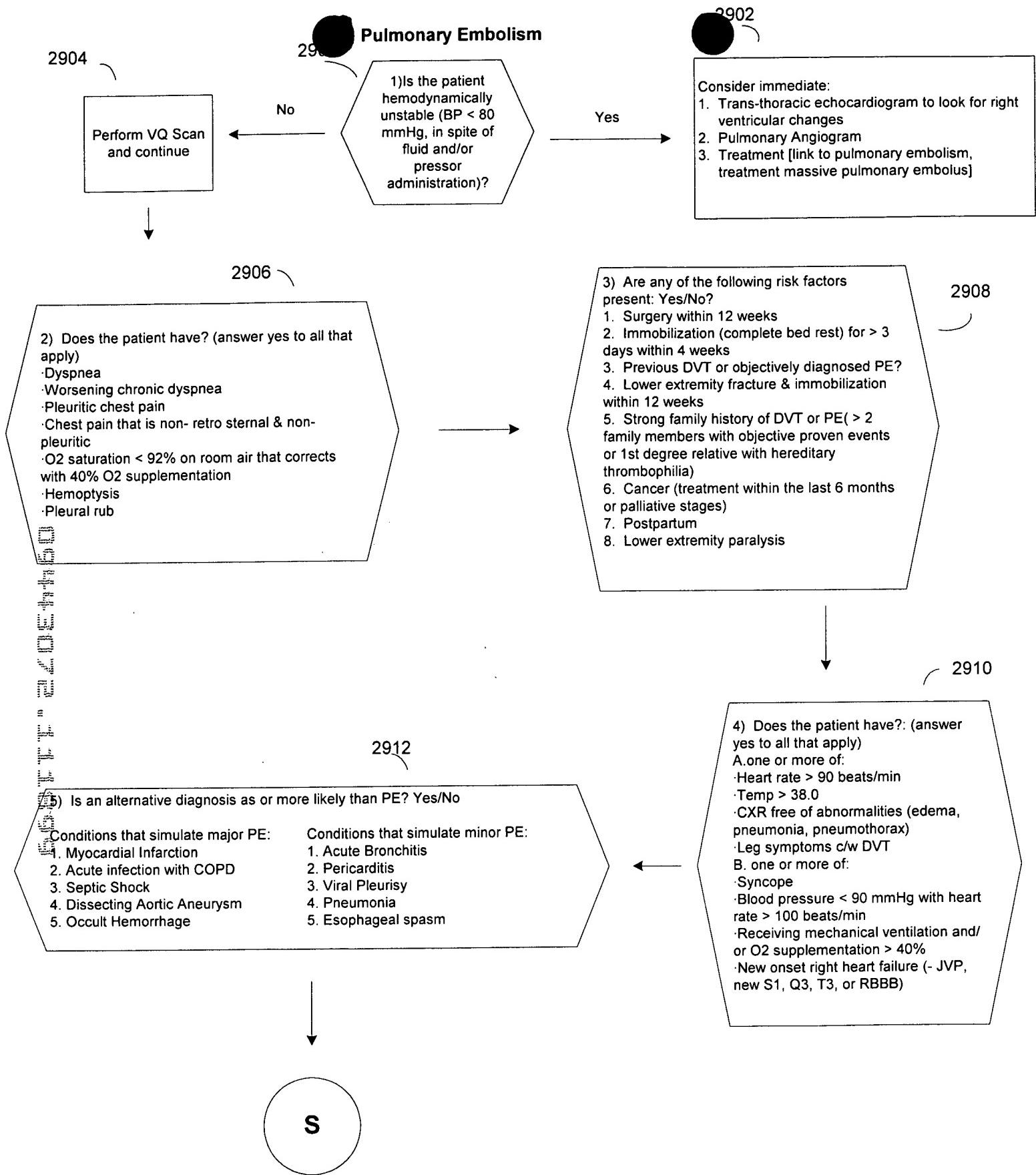


Figure 31

Pulmonary Embolism

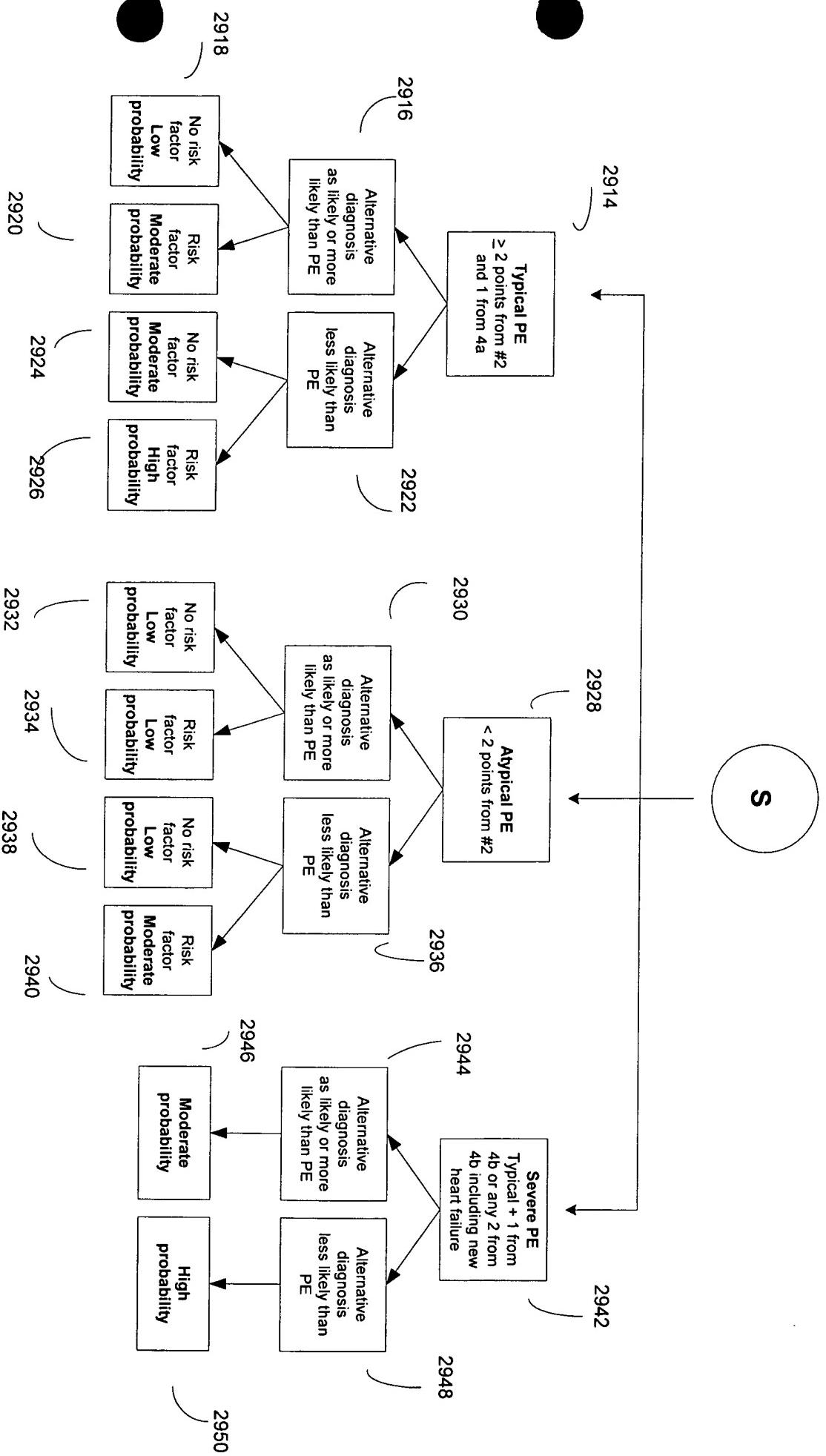


Figure 31A

Seizure Algorithm

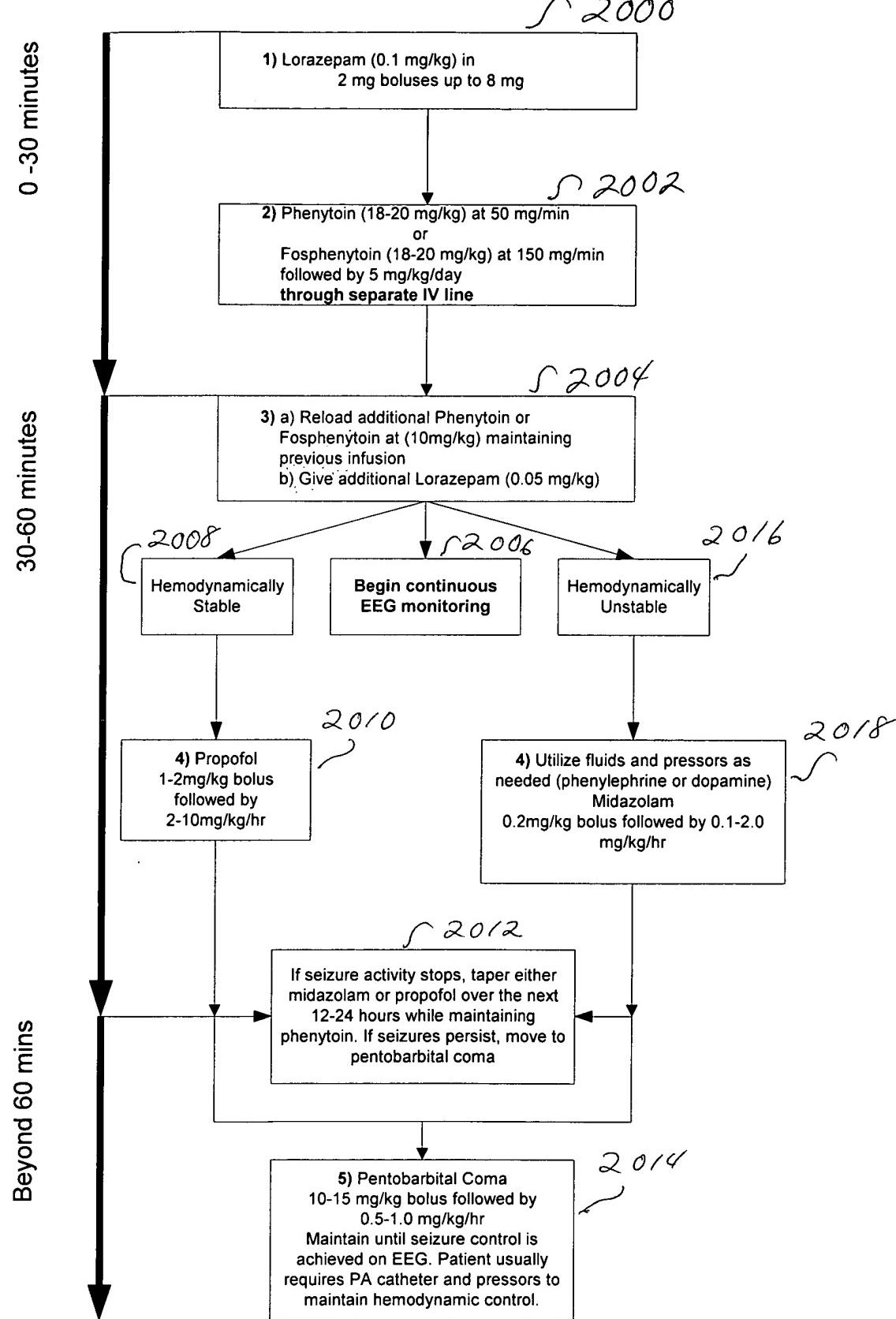


Figure 32

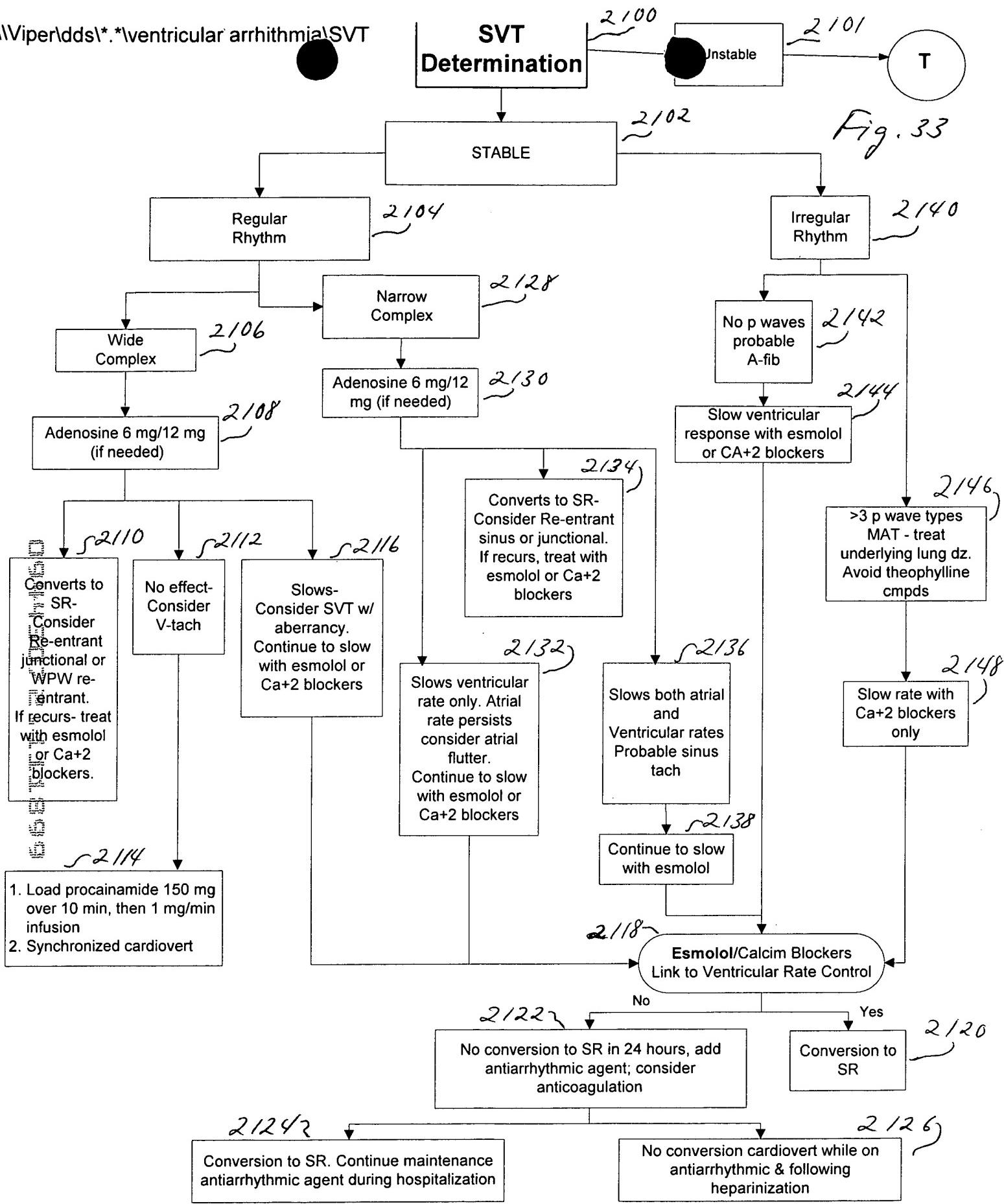
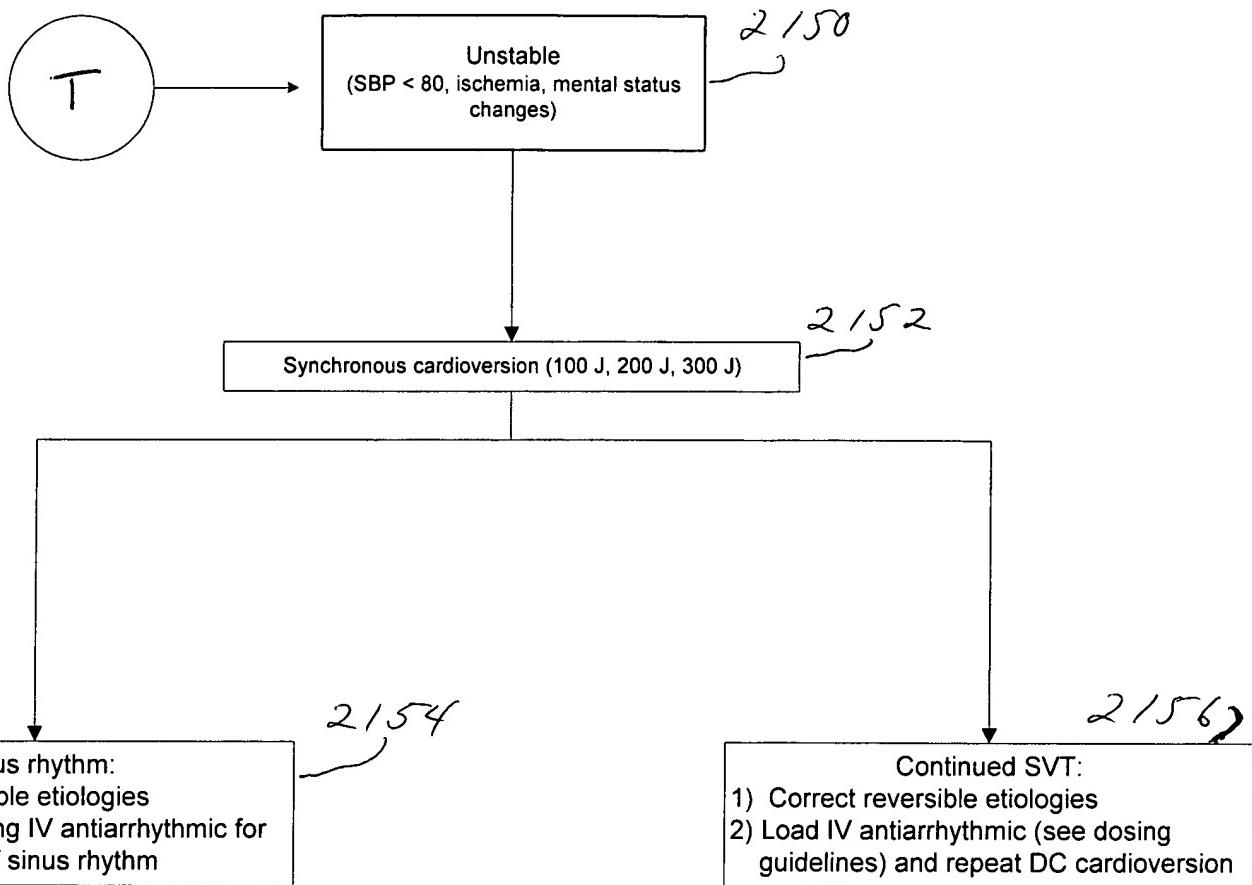


Figure 33

Fig 33A

SVT Unstable

2150
2152
2154
2156



Wide Complex QRS Tachycardia

Fig. 34

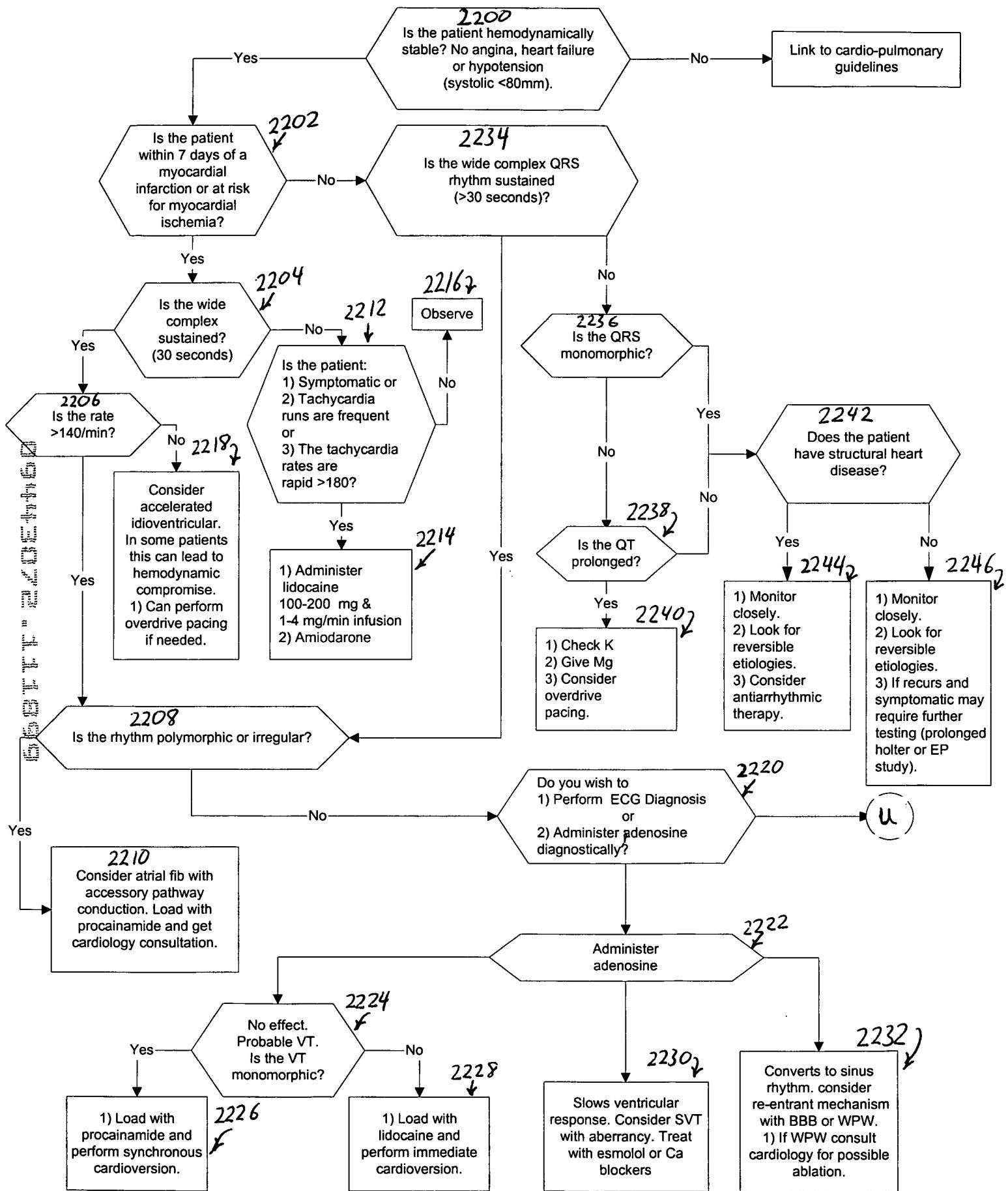


Fig. 34A

Wide Complex QRS Tachycardia (page 2) ECG Diagnosis

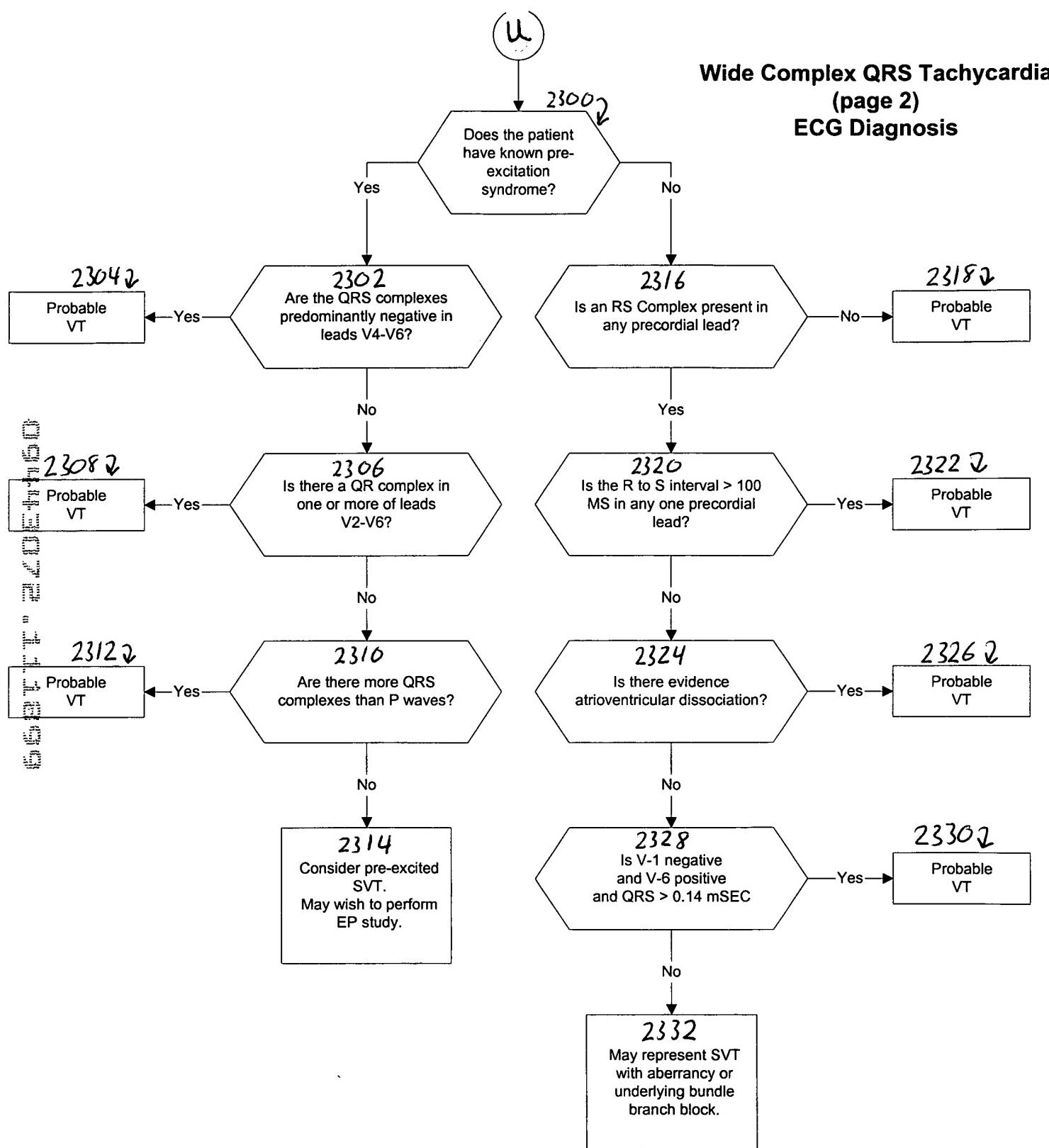


Fig. 41

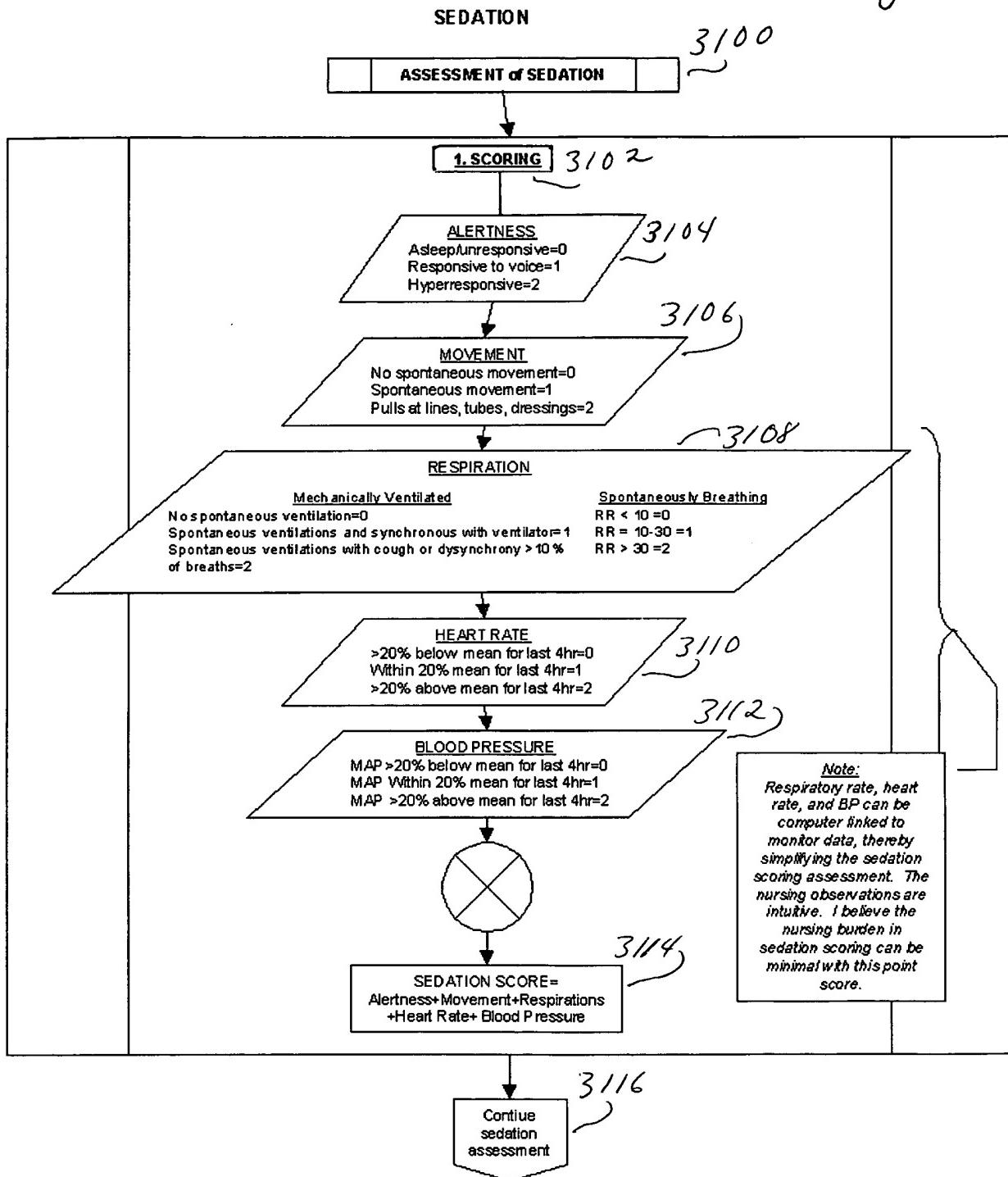


Figure 41A

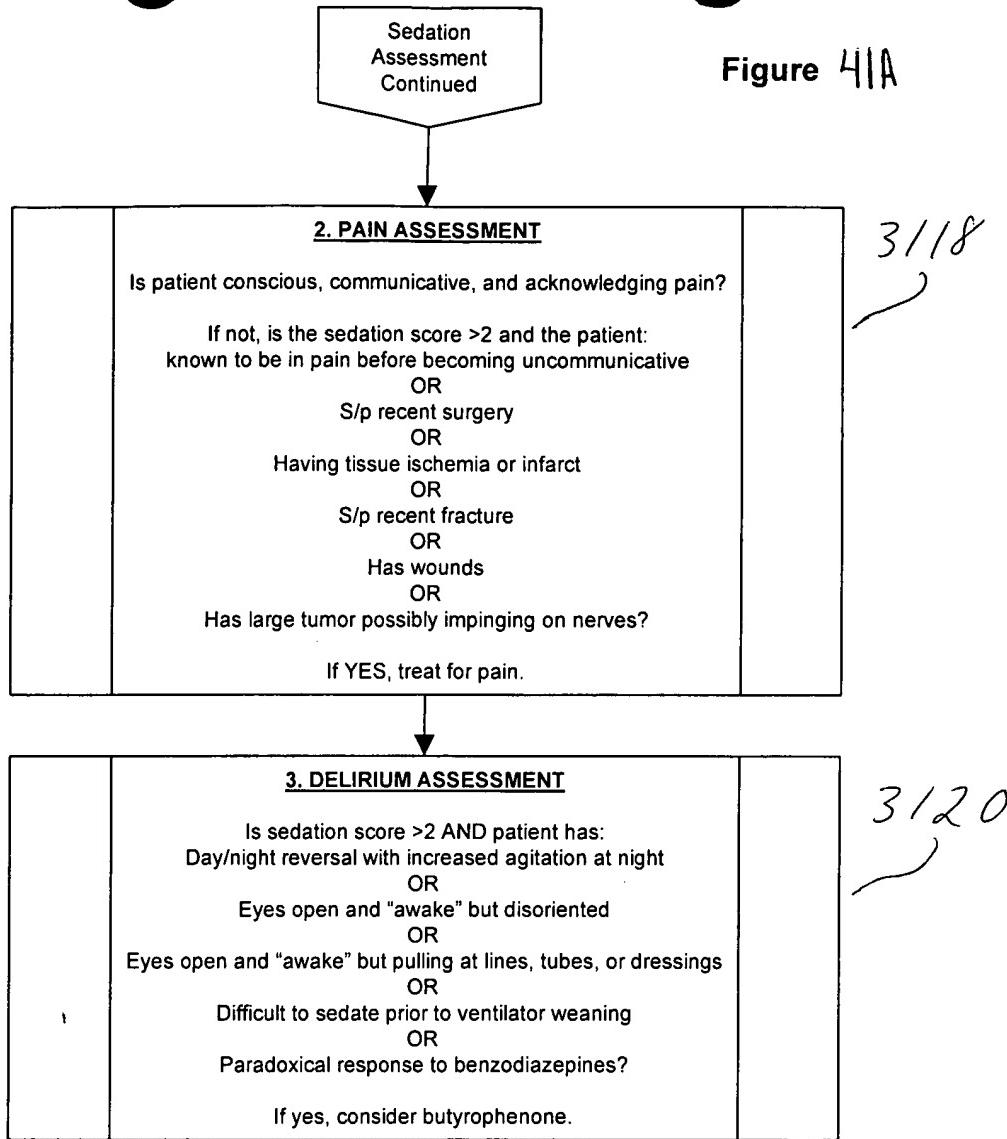


Fig. 42

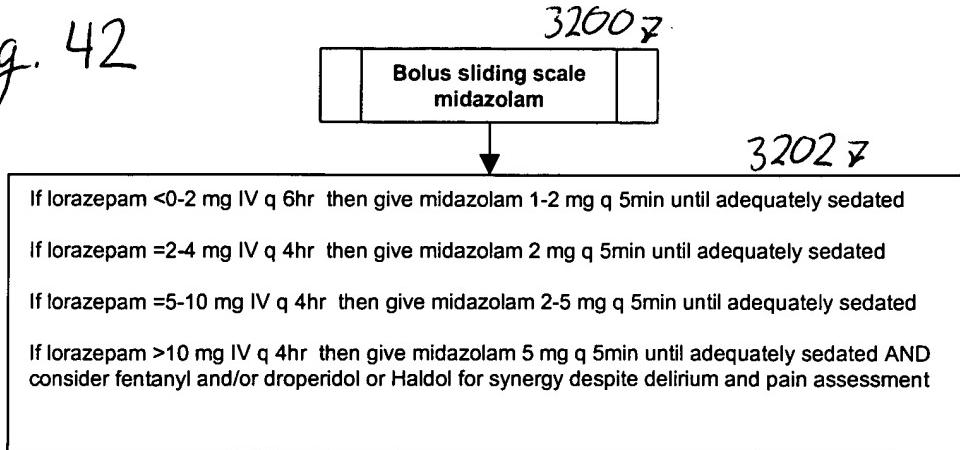


Figure 43

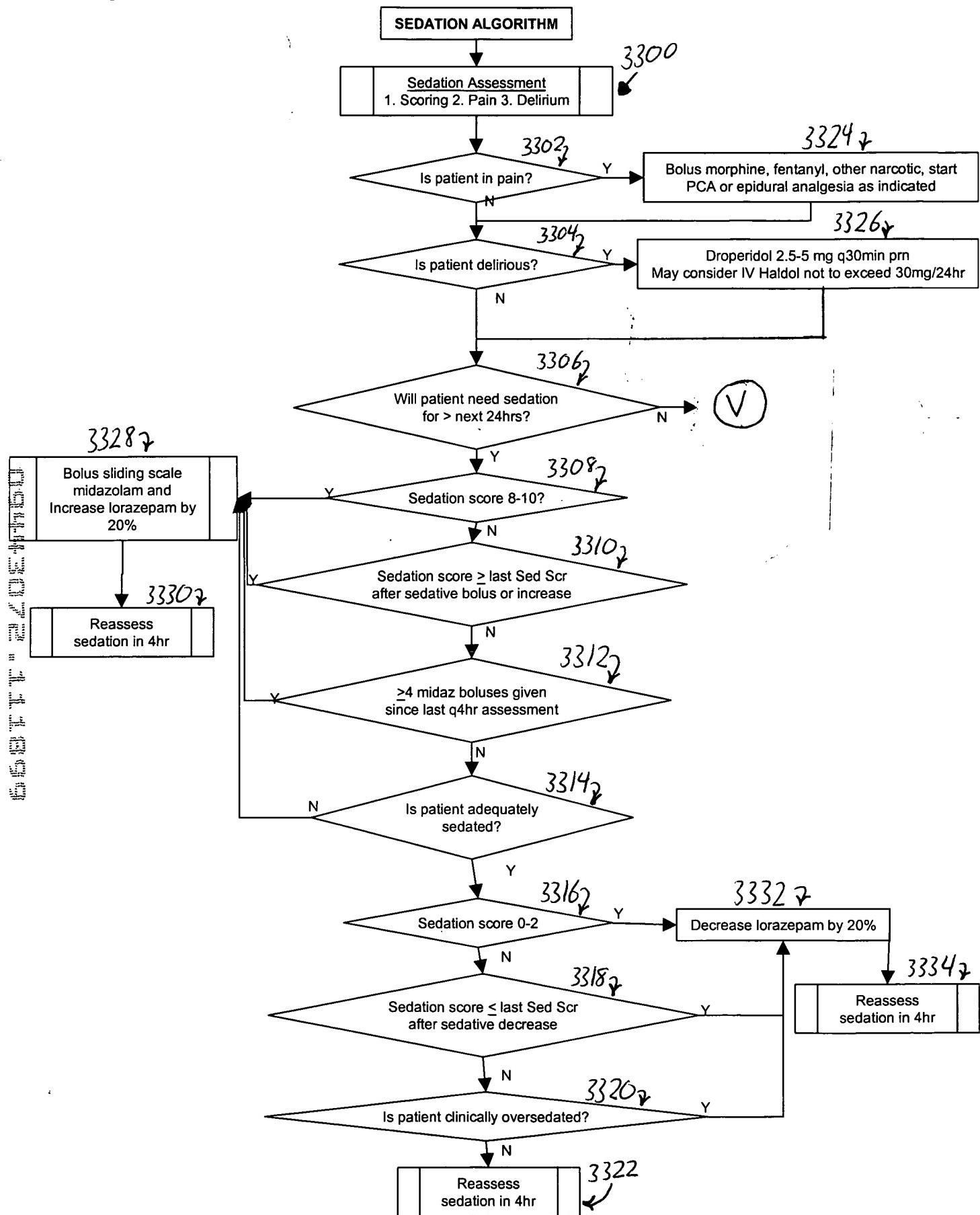


Figure 44

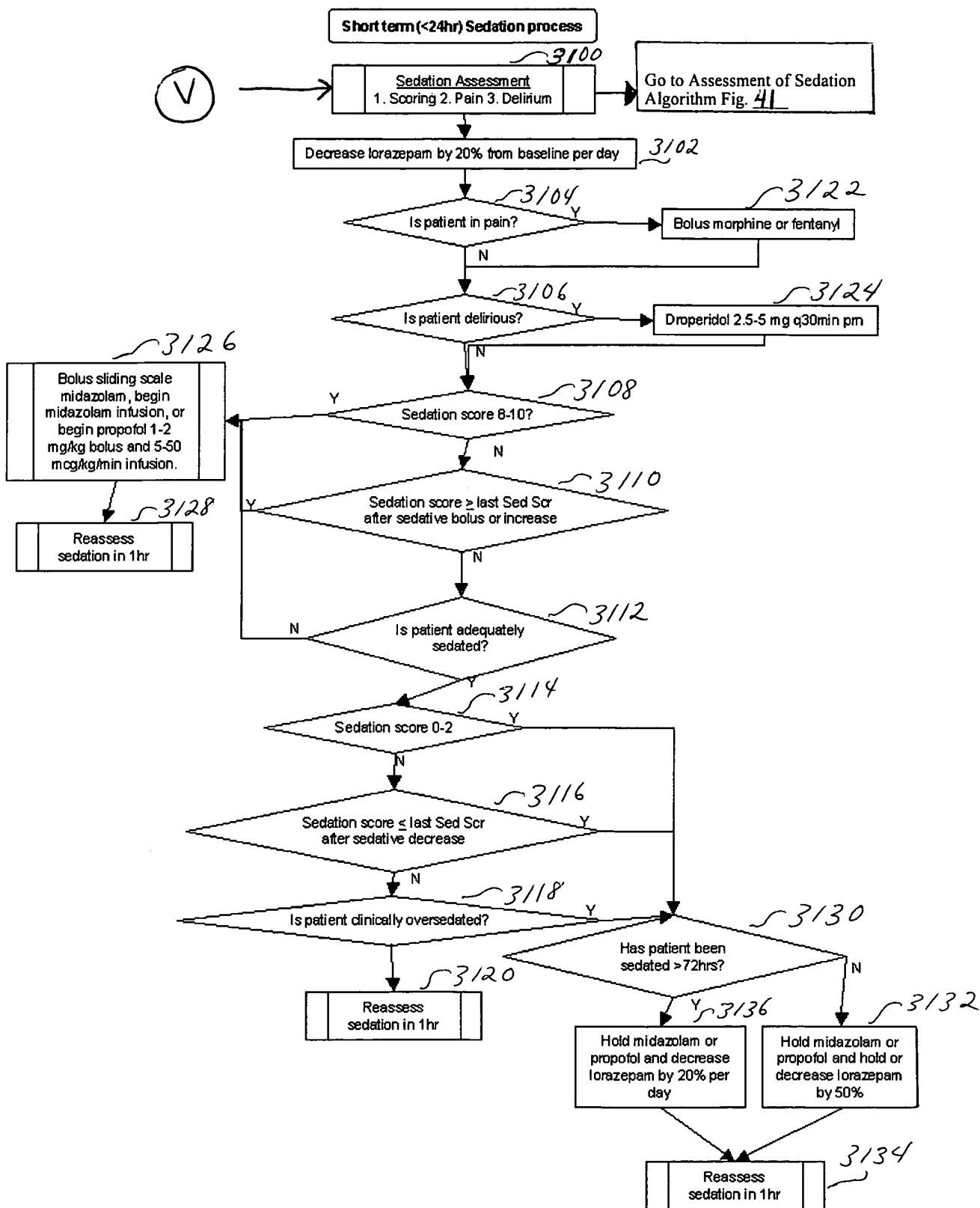


Fig. 45

Respiratory Isolation

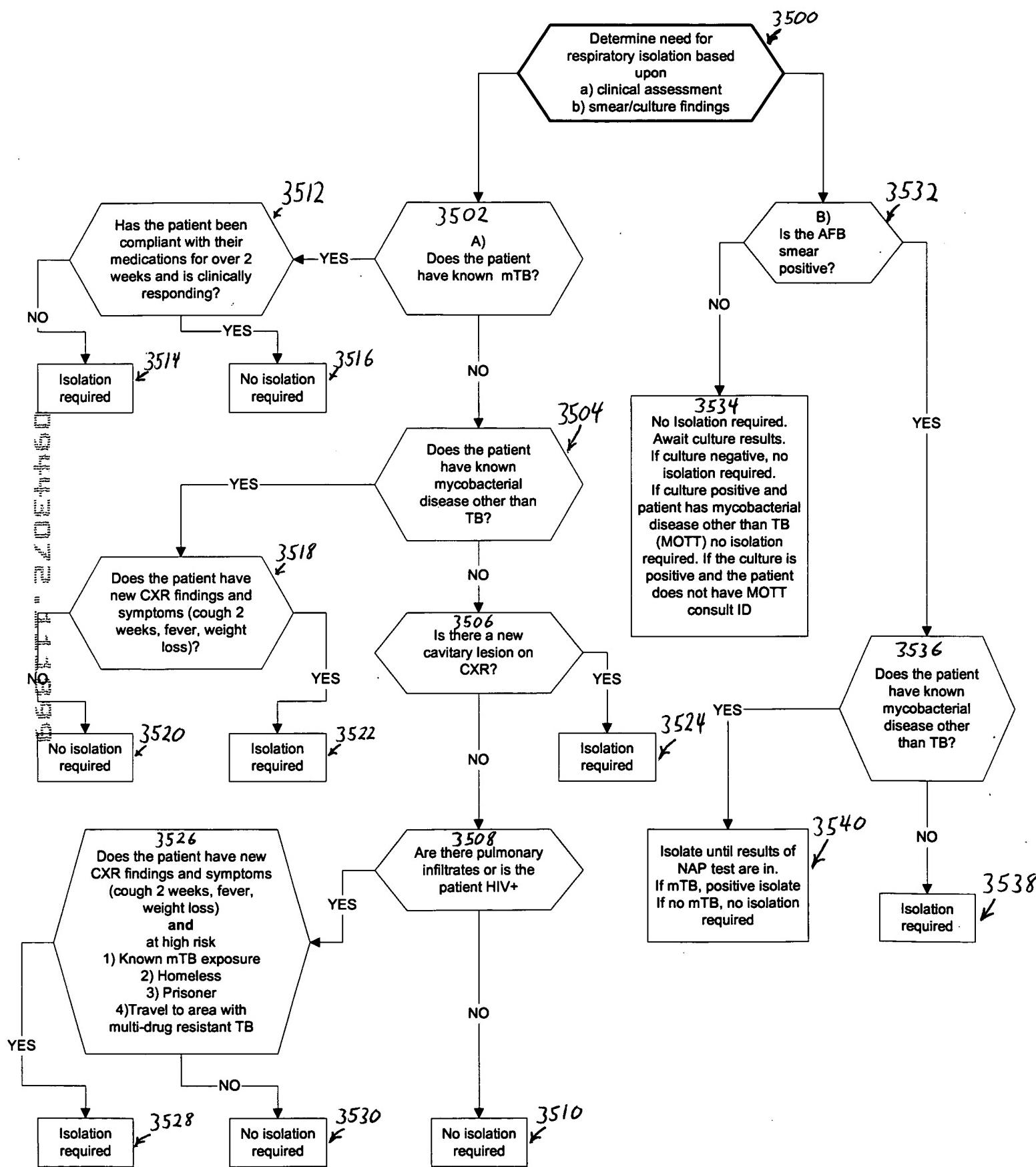
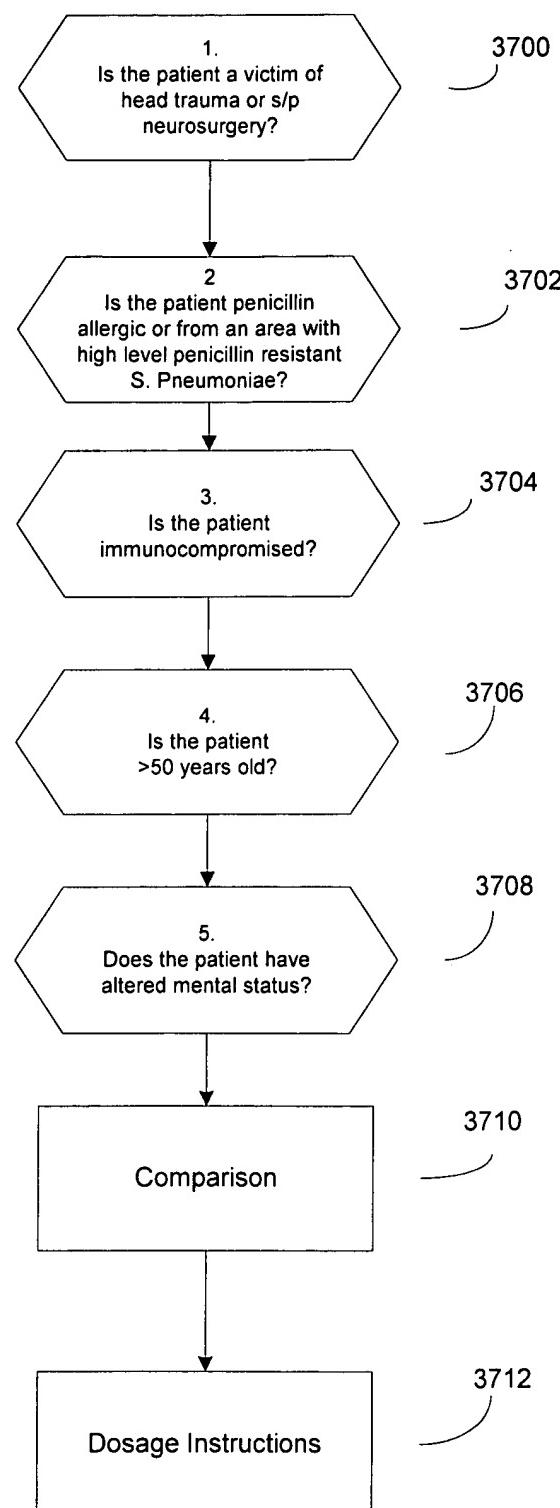


Figure 47

**Empiric
Meningitis
Treatment**

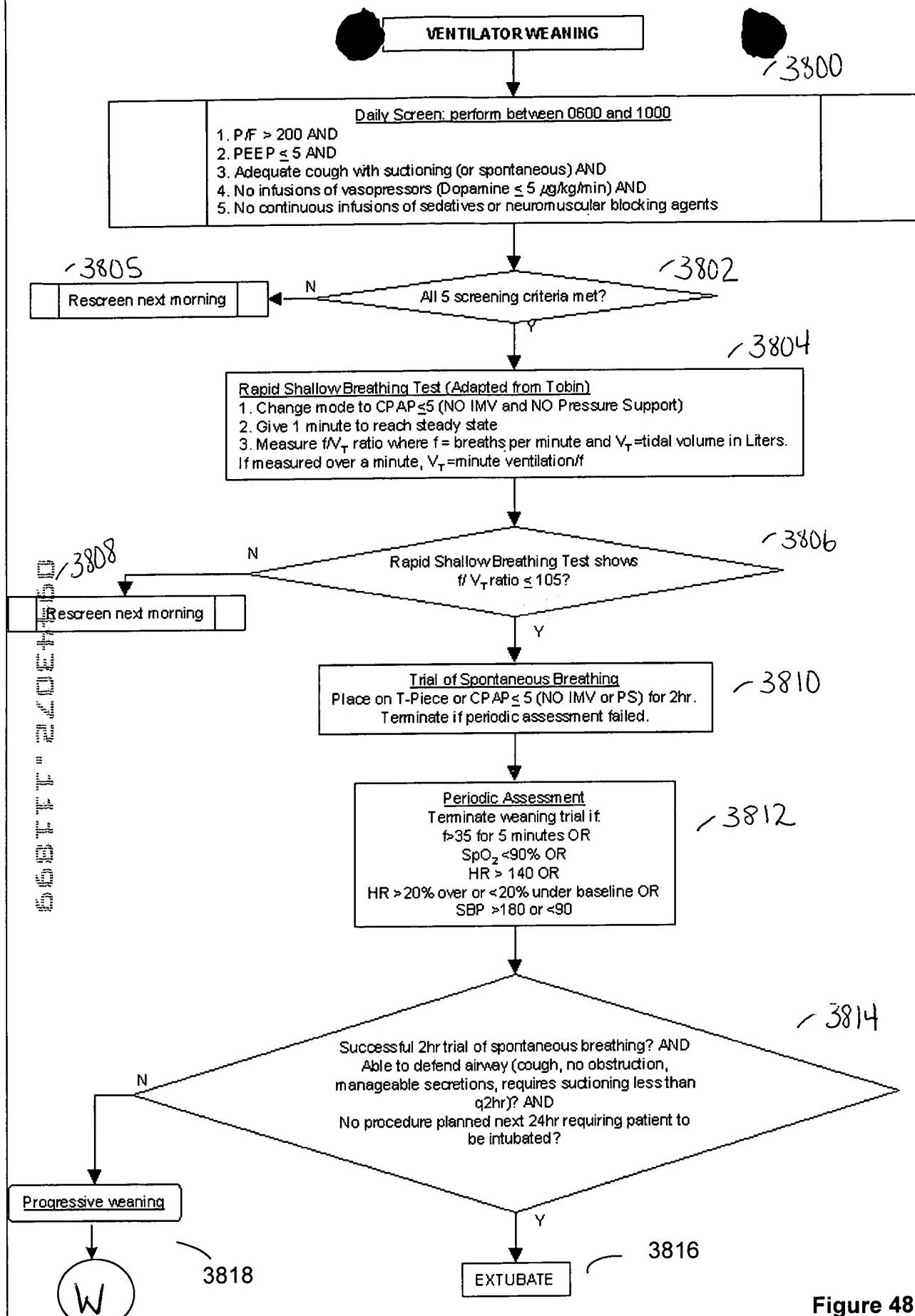


Figure 48

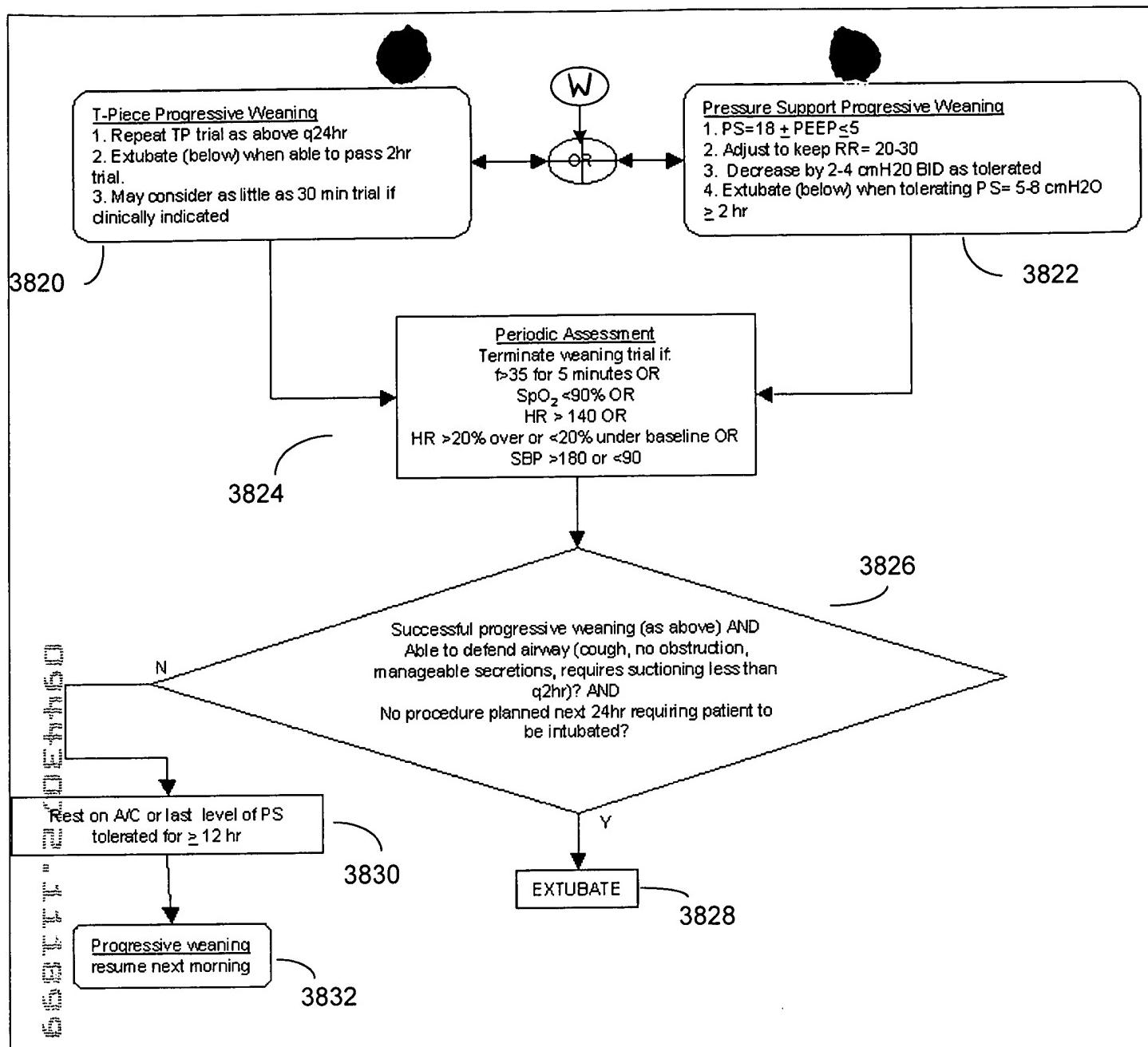


Figure 48A

Figure 49

Warfarin Dosing Algorithm

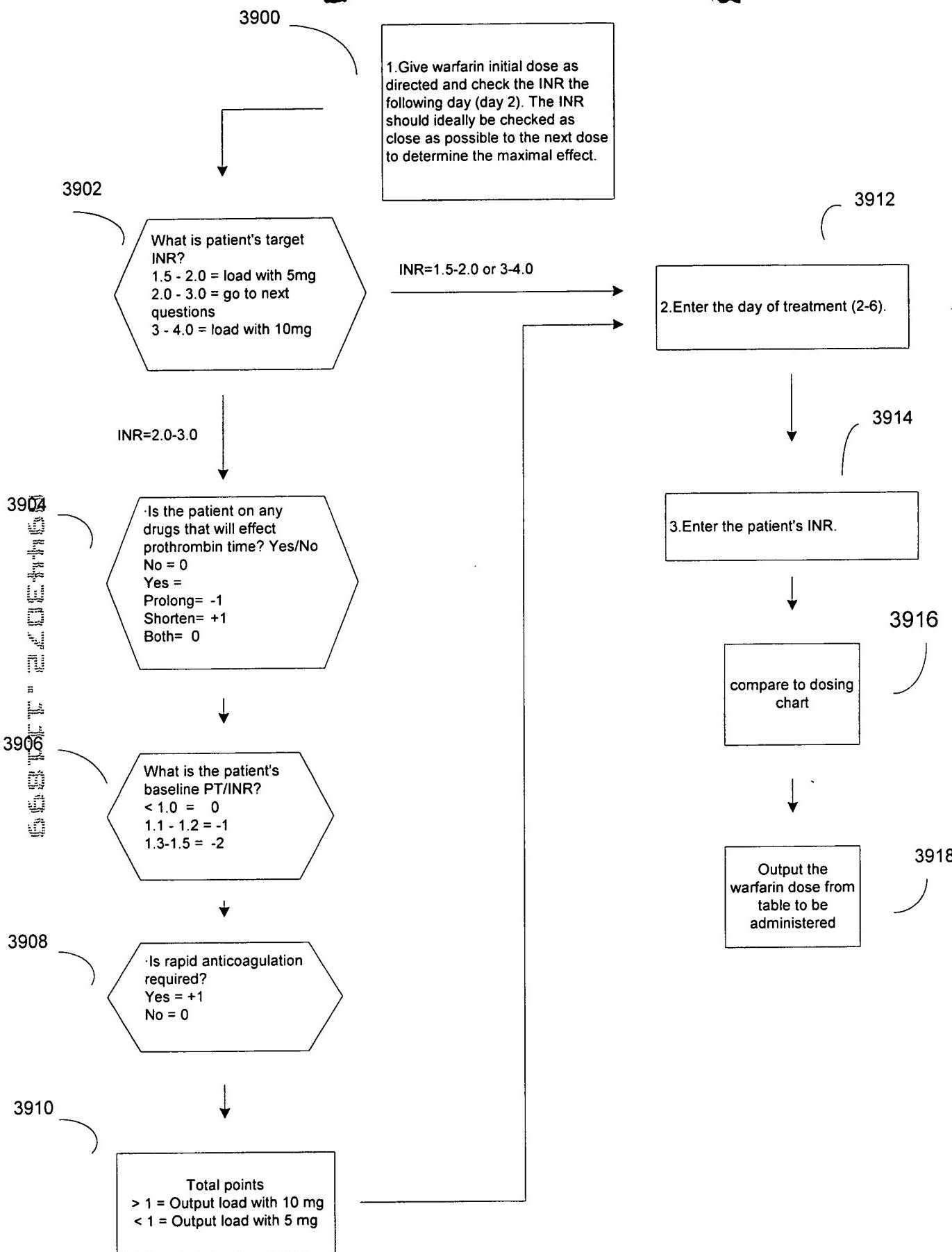


Figure 51

